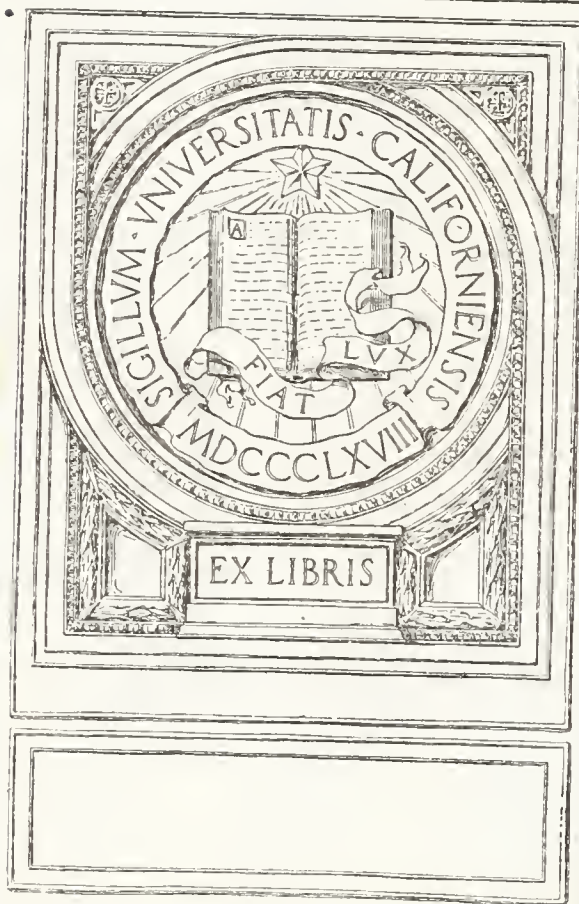



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Original Articles.

THE VALUE OF THE HOT SPRINGS BATHS IN THE TREATMENT OF CHRONIC MALARIAL INFECTIONS.*

W. T. Wootton, M.D.

Grayson E. Tarkington, M.D.

Hot Springs National Park, Arkansas.

Chronic malarial infections or latent malaria, usually means that the patient has had inadequate treatment during the acute stage (treatment sufficient to abate symptoms only), or has been infected by a strain of plasmodium, whose fighting qualities have been greatly reduced in some preceding host, and the normal resistance of the immediate host is sufficient to prevent chills or other acute symptoms. In either of these cases finding the plasmodium in the capillary circulation is like finding the proverbial needle in the haystack.

Again, a class of so-called quinine resistance cases (where a sufficiently inadequate amount of quinine has been taken daily, to not only destroy the plasmodium; but where each succeeding generation of plasmodium hatch out under the influence of this small amount of quinine, to grow immunized or resistant to it). These we also call chronic malarial infections.

In any of these conditions it is recognized that the schizont may lie dormant in the liver, but principally in the spleen for weeks or months, and at times for years, without maturing rapidly enough to cause active symptoms, such as pronounced fever, chills, etc.; but they do cause a grade of symptoms classified under the term of cachexia, and finally to a pernicious type.

It is also deemed a truth that only the schizonts or asexual forms can be destroyed by

quinine; then the sporonts or sexual forms are affected only, if at all, by large amounts of the drug continued through a protracted period. It is furthermore true that the form of schizont, or asexual form most amenable to specific treatment is the merozoite, or the young product of asexual sporulation. Therefore, chronic malaria, evidenced only by adult asexual or sexual form is much less susceptible of radical cure than those cases in which sexual reproduction occurs and young merozoites appear; in which stage the organism is most susceptible to the specific. It follows naturally that any influence which has a provocative reaction on asexual sporulation renders the parasites more vulnerable to the specific.

The difference between an ordinary bath and a Hot Springs bath is one of metabolic changes. A person immersed in ordinary hot water at a temperature equal to or greater than his body temperature, will store up heat, simply because there is no opportunity for the skin to dissipate any heat by evaporation. But as soon as this person is removed from the bath, and air is allowed to come in contact with his skin, this stored up heat is quite readily eliminated. Not so with the Hot Springs bath.

Here the temperature rises from one to four degrees by immersing the patient in the water, and this febrile effect lasts from a half to several hours after the patient is exposed to air. There is thus created a general cell activity, not a local condition at all. A more rapid metabolism than is otherwise possible to produce artificially. To this increased metabolic rate or cell change, we attribute the beneficial results obtained in obstinate or chronic infected patients. By this general activity the schizonts are forced into rapidly maturing and sporulation, and by having the patient properly cinchonized, they are killed off while in their most vulnerable stage, and

* Read before Tri-State Medical Society, Louisiana, Arkansas and Texas, at Shreveport, La., Dec. 6, 7, 1921.

also at a time subsequent to that of procreating.

Please bear in mind that no specific or germicidal effect is even considered for a moment. The thing that kills the plasmodium is quinine, and the Hot Springs bath only renders the plasmodium vulnerable.

Chronically infected patients from the South, and also patients who have been out of malarial infected districts for many years, have acute exacerbations after a few baths, and receive more benefit from quinine than was previously possible.

Reference "A Practical Study of Malaria," 1909—Wm. H. Deaderick.

CESAREAN DELIVERY—REPORT OF CASES.*

G. E. Cannon, B.S., M.D., F.A.C.S., Hope.

This mode of delivery was practiced centuries ago in Rome. This was done only on the dead subject where labor was in progress or the time near at hand, so that the mother and child could be buried separately. The first operation on the living subject was recorded in 1610.

This discussion will deal mainly with the why and when it should be done and the prognosis as it relates to time of doing the work. When delivery by the vaginal route cannot be done without too much danger to mother, this method is preferred. Contracted pelvis, overgrown or monstrous fetuses, tumors of the pelvis, either of the bony or soft structures, make it often necessary to deliver by the abdominal route or by craniotomy. In this age of surgical technique and hospital advantages we would consider craniotomy criminal, because every living child should have a chance of life. Often placenta previa in the primipara, with alarming hemorrhage, demands section to give mother and child life. Where delivery can be done by the vaginal route without too much risk to the mother section should not be done. No one should do a Cesarean operation on any case where delivery can be done by the vaginal route with the same risk to mother and child.

Any one who says a Cesarean section is no more dangerous than a severe forceps de-

livery is looking at it from the wrong viewpoint. Possibly the present danger is not any more; but no uterus or abdominal wall is as safe for the future after having been cut open. Besides this we have adhesions which may interfere some with future pregnancies. Before doing any section, be sure the safety of your patient demands it; either because some mechanical means prevents the child being born, or the mother or child needs quick delivery.

When you have decided to do this operation, be careful to do it, if possible, before the membranes have ruptured and the uterus had a chance to become infected. Then your operation, except from danger of hemorrhage, should be very little more hazardous than a clean appendix operation. We believe all this class of patients should recover quickly and well. Of course, it is presumed that all these cases have surgical asepsis and are under the most favorable conditions. All should have hospital care where it is at all possible. A great many of these cases have had forceps used and been examined many times even under all kinds of conditions. After everything else is tried and the mother is exhausted, then section is resorted to, and these are the cases where high death rates come.

The most important thing in all this work is to know when this operation should be done, and it often taxes to the utmost our powers of decision to know when. When we have decided to do it no time should be lost in doing the work carefully and quickly as possible to be conservative. Carefulness in all operations should have precedence above time or anything else.

A right or left rectus incision is preferred because of the length of the incision which should be large enough to easily admit delivery. The uterus should not be lifted out of the abdomen until after the child is delivered, but by thoroughly packing around and your assistant being careful to control hemorrhage, the child can be quickly and easily delivered. Then the assistant brings the uterus out so it can be closed. Ordinarily one deep row of sutures and then a row to cover the raw surfaces are sufficient to close well. Be careful to squeeze out the blood from the uterus and it is well to give a dose of pituitrin while closing. This controls the hemorrhage by contraction of the

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

uterus and leaves the patient in a much safer condition. This operation is a great boon to womankind. It should be done where no other mode of delivery will be better. Right here it is well to say, "Do no meddlesome interference with labor cases." As yet nothing has improved on nature's way where everything is normal. When things are not normal the obstetrician should be able to recognize it and be ready to decide upon the best course to pursue. This mode of delivery has its field as truly as the regular forceps delivery or the version method. A short report of some cases will give our reasons for section and results under existing conditions.

Case 1. A negro who had never had trouble before with deliveries was watched for some time by her physician without applying forceps. Her physician called us to come prepared to do a section, because labor pains had almost ceased and no progress made, the patient exhausted and very little dilation. Everything was prepared for the section in a hut several miles from town. When the patient was anesthetized forceps were applied with no results, after which delivery was made by the abdominal route with a dead child. The patient made a rapid recovery and some time later gave birth to another child without any trouble.

Case 2. Mrs. E. B. J., white primipara—large with evidence of a very large child. After remaining with her throughout the day and applying forceps without results, a section was decided upon. Several hours before an operation was decided upon the mother's temperature was 101 with some evidence of infection. Abdominal delivery was done in the home at 10:00 p. m. The largest child at birth that we have ever seen was delivered dead. The mother lived one week and died. Such experiences are not encouraging; but we could not see any other way out. The monster child could not have been born any other way.

Case 3. Mrs. C. C. T., a primipara who has a crooked spine and deformed pelvis, was kept on a diet for some time before the baby came so that the child might be kept as small as possible. The patient came to our hospital for delivery, and after a long wait and the failure to deliver with forceps, help was called to aid a section. Our help felt like delivery might be made by forceps,

and as they insisted on another effort being made by them with forceps, and having had such disastrous results in case 2, we decided to let them try. After failing, they all decided with me that section was the only thing. These efforts with forceps and the long delay caused us to lose this child; but the mother made a fine, quick recovery. She again became pregnant and while that way moved to Birmingham, Ala. Our advice to her was that at the first indication of labor, go at once to the hospital and have another Cesarean done and save her baby. She did this and Dr. J. M. Mason delivered her. She had a longer and more tedious recovery; but came back to Hope several months later with a fine baby. They are now residents of Little Rock, a proud mother and a fine child.

Case 4. A young white woman, Mrs. C. H., ten days before delivery time had a severe pain in the abdomen with sick fainty feeling and evidence of shock. She soon regained and was up in two days seeming to feel all right. Ten days later she came to our hospital at 5:00 a. m. with pains, but no dilation. A special nurse was put in charge with instructions to call if any unusual symptoms appeared. Vomiting, rapid pulse with an anemic appearance lasted throughout the day. Several examinations were made, but no progress. At 4:00 p. m., eleven hours after entering, the nurse called in haste. A severe gush of blood that looked alarming had just passed. As yet no dilation was evident. The seriousness of the case with placenta previa made us decide upon abdominal delivery. When the uterus was opened, at least a quart of blood was there with a fetus which had been dead for some days. The trouble ten days previously was no doubt concealed hemorrhage, which ended the life of the child. About two years later we delivered this patient by the normal route; but with a dead fetus and some old coagulated blood in the uterus which no doubt caused the death of the child. We thought possibly this hemorrhage was caused from a slight rupture as a result of the former operation.

Case 5. Mrs. H. R. H., a large Jewess, who had never been pregnant before. The first indication of labor was a slight pain with a severe hemorrhage. She came at once to our hospital, and was watched for two hours. The hemorrhage continued in an

alarming way without any dilation. There seemed no safe way to deliver except by section because we could not safely dilate. A section was done about 10:00 p. m. with a fine living child, and the mother made an uninterrupted rapid recovery. They now live in New York City, and we frequently hear from them. The mother often expresses her appreciation because she feels like the operation saved both their lives.

Case 6. This was a mother of several children, two or more of whom I had delivered without any trouble. This child could not be delivered by forceps or version. We and the consulting doctor both made futile efforts by these methods. She was brought to the hospital and delivered by the abdominal route without any complications. Mother and child soon went home well. The promontory of the sacrum seemed to have enlarged which caused the trouble in this case. Later, while removing the appendix in this case we obliterated the tubes.

Case 7. A young white woman brought by an out-of-town physician. She had a general edema and had great difficulty in breathing and also threatened with eclampsia. The physician brought her expecting to have a Cesarean done. After an examination of the patient, we decided this was possibly the best thing to do. Mother and child soon went home in fine condition and every one concerned seemed to be well pleased with the results.

Case 8. This was a primipara, aged twenty-eight years. For some time she had expected to be confined, and was so large that all who knew her were expecting something bad to happen. Her physician called us to go thirty miles in the country to see her. Labor had been in progress two days with no advancement. A section seemed the only thing that would deliver the enormously large child. The hut was too unsanitary and too isolated to even think of using for the work, so she was brought to the hospital in a large car. She was already exhausted. A section was done a few hours after she reached the hospital and the child was dead. Two days later the mother died from exhaustion with a considerable loss of blood. The husband reported the baby as weighing twenty-two pounds, but we did not believe it, though it was a monster.

Summary: These varied cases will bring out two or three points in the lesson that we wished to emphasize.

This operation should only be done when it is the safest thing for mother and child. Do not look upon it too lightly. Two lives are in your hands and each one is entitled to live if it is possible. When no other method of delivery seems as well, do it early and before too much meddling has been done. Have patient in hospital if possible.

In these cases the mother's mortality was 25 per cent and these two were cases already infected before operation. The infant mortality was 62½ per cent. All that died were cases delayed for hours and all other efforts made at delivery, except the one already dead from intrauterine hemorrhage. To save your mother and child, do your work early.

THE CHRONIC PATIENT.*

Henry Thibault, M.D., Scott.

I have two preliminary remarks to make. The first is that I have chosen too large a subject, and this has forced me to deal with it in only a very sketchy manner.

The second is that papers that deal with the limitations of physicians make one feel that while all other doctors may be thus limited, the writer has some divine insight or scientific acumen that makes him master of all such situations. I do not wish to create any such impression and when I speak of the limitations of physicians, particularly in connection with the third class of patients here dealt with, I hope that you will bear in mind that I am most emphatically including myself in the profession therein described.

Physicians and surgeons are human, and as such like to get quick results from their efforts; and because of this failing, so universal to mankind, have concentrated their best efforts on those cases where the symptomatic results of treatment are most prompt. Improvements in methods of diagnosis, in surgery and in preventive medicine have eliminated a great many diseases from the chronic list; but there is still a host of them that tax our skill and patience often beyond their strength.

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

That catch-all "Neurasthenia," has gradually diminished as our diagnostic and therapeutic ability has increased; and I doubt very much if there exists, or ever has existed, such a condition as idiopathic neurasthenia, any more than an idiopathic dyspepsia.

Because of our tendency to neglect "the chronic grunter" both in our research work and in our every day practice, often labeling him a neurasthenic and letting our efforts end there, the quacks, irregular manipulators and mental and religious healers are able to exist. These patients, whose very frailties make them crave attention, enjoy the kind and constant fondling they receive at the hands of such charlatans, even if their physical troubles are not relieved; and it is perfectly natural for them to prefer this seeming solicitude to the indifference of the average doctor. As Goldthwait¹ has very aptly stated, "Every year more and more of these sufferers are turning from our profession to irregular practitioners, or members of various cults, for such relief as is possible."

Now at the outset let me define three classes of chronic patients so that I can discuss the subject in its relation to each class and show wherein the profession is lacking in dealing with each class.

1. Patients who are chronically ill from some well understood disease which has been neglected until all hope of arrest or cure is past.

2. Patients who constantly suffer from some removable cause that has not been diagnosed.

3. Patients who have some ill-defined trouble which our present methods of diagnosis and treatment are incapable of relieving.

The first class includes patients who are hopelessly ill from diseases that might have been prevented or cured if the medical profession had properly educated the public, and includes that great group of medical failures resulting from the home treatment of symptoms until the disease causing these symptoms has passed the stage at which it might have been cured or arrested. In this group are included most of the fatalities from cancer, tuberculosis, chronic nephritis and surgical diseases of the abdomen, chest and brain. In a

great many of these cases there was probably a time when proper medical supervision would have prevented the fatality.

The second class, from a pathological standpoint, includes everything, and represents the gross neglect in the routine work of the rank and file of the medical profession of today. Errors in diagnosis through lack of thorough examinations have been extensively discussed on so many occasions that I will not dwell on the subject here; but in this connection, I want to stress the necessity of bearing in mind that the actual geographic distribution of tropical and other infectious and parasitic diseases is not wholly determined and their occurrence in unexpected places must be constantly borne in mind. By constant vigilance we may add to the world's knowledge of the distribution of diseases and, what is equally as important, give early warning to the health authorities of the introduction of these infections into new territory.

The third group contains those patients who are suffering from diseases as yet not thoroughly understood by the medical profession and comprise that field in which research has such bright hopes and in which the patients are such long sufferers. Goldthwait¹ thinks that many of these chronic sufferers are the victims of a congenital type of build, their long slim bodies predisposing them to visceroposis, too close juxtaposition of the transverse processes of the last lumbar vertebra and the iliac wings and an improper relation of the last ribs and the transverse processes of the first lumbar vertebra. These patients often suffer from vague backaches "for which so many mysterious manipulations are performed and for which much 'kidney medicine' is taken." Again, he believes that the long loose-jointed types of humanity with chronic discomfort and functional impairment of the abdominal organs may actually be suffering from repeated trauma due to their increased waist-line flexibility. His observations again stress the importance of stripping our patients and making careful observations of their general physical make up. Medicine is still a very young science and we fully appreciate its youth when we compare what we *can* do for our patients to what we would like to do for them or to what many of them expect us to do. It is pure fiction and unjustifiable egotism for us to assume that all diseases are entirely understood. There are probably many infectious

¹ Boston Medical and Surgical Journal, January, 1922. Vol. 186, p. 31.

diseases as yet entirely unknown and there are surely many of them of which our working knowledge is very unsatisfactory, and our knowledge of the internal secretions and particularly of *the causes* of their over or under-activity is as yet practically unborn, in spite of the great mass of literature that has accumulated on the subject. To say that a certain gland or group of glands is hyperactive or hypoactive is not enough. What is the underlying cause of this perversion of function? The thinking physician has already discarded "indigestion" and "dyspepsia" as pathological entities and his experience with the digestive system ought to teach him that organs otherwise normal and unintoxicated by some definite pathological condition in themselves or elsewhere in the body, are not guilty of perverted function or dysfunction.

TREATMENT.

For the first group, educate your patients to the fact that disease, like fire in a dwelling, is more easily and more economically controlled at its beginning, that the leisurely office examination is far more valuable and costs a great deal less than the spectacular emergency call "when if I had been just a few minutes later the patient would have died." That operation can remove a diseased appendix before it has done irreparable damage, cheaper, better and safer than after it has made a chronic invalid of the patient. That most chronic diseases, like consumption, nephritis, chronic cardio-vascular diseases and many others, are not painful or particularly debilitating in their earliest stages, and that is often the reason that they become chronic.

For the second class we are doing much. The medical profession as a whole is more careful and more elaborate in its diagnostic efforts than ever before. Increased facilities for transportation have done much to eliminate the careless man who once boasted of "an unopposed practice," and the telephone and the parcels post have practically brought the laboratory to every doctor's door. Still, there are a few men giving "indicated remedies" for "the symptoms as they arise." They are the beloved of the proprietary medicine vendors and a bane to humanity. My conception of medical ethics has never included the protection of men who grossly neglect to examine their patients. The man who treats a patient for eight or ten months for menorrhagia with some proprietary "female tonic-

sedative" and does not examine her, need expect no mercy at my hands when I find her dying with a frank, but unsuspected, cancer of the uterus. Nor do I feel it my duty to protect a man who has treated for weeks for "slow fever" a patient with tubercular pleurisy with effusion, and has not ever examined the patient's chest though he has visited him once or twice every day. These are the cases where the patient's pay for such neglect, not only with their money, but with their lives; and perfect frankness as to what has happened to them is no more than very scant justice to them and the only efficient remedy for such practice.

For the third class we have no treatment. Their relief depends on the future development of medical science. They are the perpetual challenge to the medical profession to move forward. A challenge that humiliates us and at the same time stirs us to renewed efforts in every branch of our calling. For those congenitally misconstrued individuals we can do a great deal by more careful study of the patients themselves and less blind reliance on laboratory findings. The old-time family physician had a wonderful advantage in his intimate association with his patients and in his minute knowledge of their daily habits of life, and in spite of our advances in a great many directions we have never found an efficient mechanical substitute for intelligent personal observation.

DISEASE.*

J. T. Clegg, M. D., Siloam Springs.

My experience as a member of the lawmaking body of our State in endeavoring to enact legislation in the interest of the medical profession revealed to me the deplorable misunderstanding, or the lack of information among the masses, on the subject of disease. This has prompted me to write this paper that I might stimulate someone else to take the matter up and assist in creating a more exact knowledge of disease and its treatment than now exists. This knowledge must come from an understanding of the infallible and unchangeable laws of nature. There is nothing in the universe but what is created, activated and controlled by physical law. As far as

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

we can ascertain, disease made its appearance on earth about the time of the coal era. Disease is not a mystery if understood; but is a condition subject to the same material factors of physical energy as any other condition. Every individual or body, plant or animal, of organized matter is activated and controlled by natural physical force, generated in its own organism. Every cell and all protoplasm in the body has its own particular function.

Disease is a failure of function; function is chemical action. No life can continue in the absence of the chemical elements, making up the environment in which we live; as Dr. J. S. Haldane expresses it, "Anoxemia of the brain not only stops the machine, but wrecks the machinery." No chemist has yet made a living cell or living protoplasm. No chemist has yet made an atom or a molecule, yet the arrangement of the atom in the molecule plays just as important a part in the reaction of an inorganic elements as does the nucleus of a cell in living tissue. There is no doubt but organic growth is evolved from the inorganic, from the crystal to colloid, from colloid to protoplasm, from protoplasm to single cell growth, from single cell division to gametation, fertilization and tissue differentiation and development of the adult animal or plant. Primitive organism in its non-complex form is immortal; that is, not subject to natural death. The more highly organized or differentiated the individual organization becomes, the more complex the organization, the more predisposed is failure of function or disease even to the acquirement of natural death; and natural death has become hereditary in different species of plants and animals, at certain ages of each particular species. The higher animals, including man, that have advanced beyond the simple organic existence as that beyond the age of government by the vagus and sympathetic nerves, and have developed the brain and spinal nerves, are necessarily more subject to disease than those of simpler or less complex organism.

Chemical energy is positively and absolutely necessary to any form of life and to any function of any structure, or any cell or protoplasm; and if chemical energy is not properly supplied to any structure, there is a failure of function or disease. A failure of oxygen supply means sudden death.

The term "vital force" should be discarded because it does not express the facts. No type of metabolism, no movement, no thought, no

emotion, no volition or action of any kind whatever, can take place without a chemical change. I use the word "chemical" because it includes all electrical and all other forms of energy. The activation of an emotion through an organ of sense may cause a change of function in a distant organ by means of protoplasmic transmission of nerve influence. This fact may be for good or bad and is taken advantage of by the various mental, magnetic and suggestive healers; or, on the other hand, may cause, by disturbing cell chemistry, the loss of function in the distant organ or disease. Proper function at least of metabolism in animals of complex organization, as man, depends not only on its own material, but on chemical products of vegetable origin; that is, of nitrogen so modified, known at present as vitamins, that it in some way combines with protein to render it convertible into active material fit for tissue growth.

Vitamins are found in abundance in animal secretions, as in milk and butter, but not found in animals not fed on vegetable food. Animals deprived of vitamins develop a failure of nutrition, consequently disease. No organism, whether plant or animal, can live without the assistance of previous organic matter.

In differentiating into the complex of animal formation, nature has found it necessary to evolve certain organs to maintain a balance of growth and nutrition of the various structures of the body, known as the endocrine glands. A change in the chemistry of the secretion of one or another of these glands will cause a perversion of chemical reaction of some of the elements of the body or disease from the basic material of all organic existence—protoplasm. The genetic or germinal cells have evolved all differentiation of structure or function, even to the brain, and its emanations in the form of thought and psychological emotions, commonly known as the mind. If by any means or accident, there is interference in the evolutionary development of the brain, there would be an impairment of function and mental disease.

It is very difficult to draw the line of distinction between failure of function or disease from natural causes; that is, from arrest of development of structural differentiation and disease from trauma. I am inclined to classify all diseases caused by microbial infections, as well as common poisons, as traumatic, or at least accidental. Microbial fossils

indicates that micro-organisms have been on earth many, many ages and probably antedates the appearance of plants and animals. What its influence has been on plant and animal evolution and disease is probably unknown; but I have written enough to suggest that there is no room on this earth for any kind of a healer of disease, or pathist or practitioner, but who should be more or less familiar with the common laws of nature and of the natural elements about us. It is evident to a demonstration that there is no force or element at play in connection with disease of any kind in any stage, but what is immediately physical and natural and no mental, emotional, or psychic condition that is not a property of the five senses; and no treatment of disease is worth considering that is not based on natural law.

Such an assumption that there can be a system, a sect, a school or a denomination or a creed in the practice of medicine is absurd indeed. Life, disease and death in all gametical species at least depend on the infallible laws of the universe, and the true physician is he who applies any method of treatment that will revive, correct or restore function and cure disease.

I have written this paper briefly, and have avoided detail. I have expressed nothing but generalities and mere assertions. For further study of the subject I will refer you to Sir Ernest Rutherford on "The Constitution of Matter and the Evolution of the Elements; Charles D. Walcott, on "The Evidence of Primitive Life; Ami Pictet on "Molecular Structure and Life; Edward Berry, on "Paleobotany; Roy S. Moodie, on "Paleontological Evidences of the Antiquity of Disease;" Ralph S. Lillie on "Growth in Living and Non-Living Tissue;" Nathan Fastin on "Colloids and Living Phenomena;" Dr. H. Steenbock on "Vitamins and Nutrition;" Raymond Pearl on "The Biology of Death;" Dr. Alfred C. Reed on "Vitamines and Food Deficiency in Disease;" Edwin Grant Conklin on "The Mechanism of Evolution;" Professor Charles C. Adams on "Animals and Their Environments;" Ralph S. Lillie, "Nervous and Other Forms of Protoplasm Transmission;" Sir James McKenzie, "Heart Disease."

KOLOR-BAK.

This is a hair dye marketed by the Hygienic Laboratories, Chicago. It is claimed not to be a dye or stain but to restore gray hair to its original color. It is claimed to be harmless

and not to contain powerful mineral ingredients. The preparation was analyzed in the A. M. A. Chemical Laboratory and was found to contain lead acetate, 0.6 Gm., and precipitated sulphur, 1.0 Gm. in 100 Ce. It is evident from the analysis that the claims made for Kolor-Bak are false (Jour. A. M. A., April 15, 1922, p. 1146).

MORE MISBRANDED NOSTRUMS.

The following proprietary preparations have been the subject of prosecution by the Federal authorities charged with the enforcement of the Food and Drugs Act:

Diemer's Manhood Tablets (Dr. F. W. Diemer Medicine Co.), consisting chiefly of sodium bicarbonate, reduced iron, a compound of zinc, phosphorus and small amounts of capsicum, strychnin and an extract from a laxative plant drug.

A BASIS FOR PREVENTION OF CANCER.

In a number of text-books, some recent, and in an occasional current review, one encounters discussions of the cause or causes of tumors that minimize or treat lightly any alleged influence of irritation in the production of neoplasms, particularly malignant growth. W. M. L. Coplin, Philadelphia (Journal A. M. A., May 20, 1922), combats the tendency indicated and summarizes some of the accessible data which, he believes, go far to establish the conviction that, of all the possible factors operative in producing cancer, irritation occupies a position of first importance.

WHY BABIES DIE.

More than 100,000 of the 250,000 children less than one year old who die every year in the United States die from causes connected with their birth, says the U. S. Public Health Service. The need, it adds, for further study and investigation of these causes is urgent.

VITAMINES NOT A CURE-ALL.

The present popular tendency to extol vitamins as a cure-all may be drawing to a close. The U. S. Public Health Service reports that efforts during the year to discover the unidentified food substance whose absence from the diet causes pellagra have excluded two of the three known vitamins. The search for the missing element is being steadily narrowed.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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HEALTH AND PUBLIC INSTRUCTION—L. Kirby, Harrison, Chairman; Thomas Douglass, Ozark; H. A. Ross, Arkadelphia; Chas. H. Cargile, Bentonville (ex officio); Wm. R. Bathurst, Little Rock (ex officio).

CANCER RESEARCH—E. E. Barlow, Dermott, Chairman; A. E. Chace, Texarkana; W. V. Laws, Hot Springs; Dewell Gann, Jr., Little Rock; W. H. Deaderick, Hot Springs.

INFANT WELFARE—G. A. Warren, Black Rock, Chairman; Charles Wallis, Arkadelphia; A. C. Kirby, Little Rock; W. T. Wootton, Hot Springs; H. H. Niehuss, El Dorado.

WORKINGMEN'S COMPENSATION AND SOCIAL INSURANCE—J. M. Lemons, Pine Bluff, Chairman; Thad Cothorn, Jonesboro; Henry Thibault, Scott; R. Y. Phillips, Malvern; W. R. Brooksher, Fort Smith.

HOSPITALS—C. S. Pettus, Little Rock, Chairman; John Stewart, Booneville; R. C. Dorr, Batesville; J. I. Scarborough, Little Rock; E. F. Ellis, Fayetteville; J. J. Smith, Paris.

SCIENTIFIC EXHIBIT—D. A. Rhinehart, Little Rock, Chairman; J. D. Southard, Fort Smith; Chas. E. Oates, Little Rock; W. V. Laws, Hot Springs.

ARKANSAS STATE BOARD OF HEALTH—C. W. Garrison, Little Rock, State Health Officer; O. L. Williamson, Marianna; C. F. Crosby, Heber Springs; Leonidas Kirby, Harrison; H. R. Webster, Texarkana; H. L. Montgomery, Gravelly; S. A. Southall, Lonoke; F. O. Mahoney, El Dorado.

STATE BOARD OF MEDICAL EXAMINERS OF THE ARKANSAS MEDICAL SOCIETY—J. A. Bogart, Forrest City; J. T. Palmer, Pine Bluff; J. W. Walker, Secretary, Fayetteville; J. C. Swindle, Walnut Ridge; W. F. Smith, President, Little Rock; H. A. Ross, Arkadelphia; W. H. Toland, Nashville.

Editorials.

OUR ANNUAL MEETING.

Dr. Robert Caldwell of Little Rock, was elected President of the Arkansas Medical Society at the annual meeting held in Little Rock, May 17-19, succeeding Dr. Chas. H. Cargile of Bentonville, who presided until the last day of the Convention when new officers were elected as follows:

Dr. E. A. Purdum, Hot Springs, First Vice President.

Dr. J. D. Southard, Fort Smith, Second Vice President.

Dr. L. T. Evans, Mt. Pleasant, Third Vice President.

Dr. R. L. Saxon, Little Rock, Treasurer (re-elected).

Dr. Wm. R. Bathurst, Little Rock, Secretary (re-elected).

Hot Springs was chosen as the meeting place for 1923.

One of the attractive features of the meeting was the excellent scientific exhibition. It included many dissections, anatomical and pathological preparations, a complete series of cross section anatomy with explanatory charts, x-ray photographs and a full set of State Board of Health exhibits, enlivened by a semi-humorous, yet instructive collection made by Dr. Henry Thibault of Scott, of the amulets, saeculi and charms still worn by the superstitious to cure or prevent disease. The credit for presenting this scientific exhibit is due Dr. D. A. Rhinehart, chairman of the committee. We hope to have an exhibit of this kind as a feature of every regular annual session henceforth.

The reports of the various committees showed excellent work during the fiscal year, comment on which and of the president's address will be made later following the publication of the proceedings in the July issue of the Journal.

The attendance was gratifyingly large and more than usual interest was displayed in the general sessions. The papers were uniformly of high order of merit, instructive and well calculated to keep interest alive throughout each session.

Much credit is due Mrs. Homer Scott, chairman of the ladies' committee, for the splendid

manner in which the visiting ladies were entertained.

One of the very important matters accomplished was the action of the Council by which the State Board of Medical Examiners was granted financial aid and legal assistance in the fight against quacks and quackery.

“IF——”

“Measles could be eliminated throughout the United States in 48 hours!” That was the remarkable statement made by Dr. Royal S. Copeland, Health Commissioner of New York City in an address to the Press Club of that city; but there was an “if” attached. It could be accomplished said Dr. Copeland, if it were possible to isolate every case that presented itself.

To reach every parent in the United States so that he or she could be impressed with the importance of isolating each patient for two days would be a gigantic task; but not an impossible one. What the doctor said, however, proves how important it is to enlist the aid of Congress in health preservation and disease prevention. In this world of ours—this world of today when peoples of every nation and their products are closer to each other than once were the peoples and products of the same country, when travelers from the Antipodes may reach any other part of the world more easily and quickly than once they could cross a continent, it is a fact that a case of bubonic plague in Asia is a menace to Arkansas.

It takes a long, long time to make politicians—and even statesmen—understand that, after all, health is really the most vital of all problems. When this idea does permeate their consciousness we may yet have a health department represented in the cabinet and appropriations large enough to accomplish nation-wide education as to sanitation and disease prevention, in addition to quarantine and other methods of combating epidemics. As it stands now cattle and hogs receive greater Federal attention in health preservation than do men, women and children. It was written “Are not two sparrows sold for a farthing? And one of them shall not fall to the ground without your Father. But the very hairs of your head are all numbered. Fear ye not, therefore, ye are of more value than many sparrows.”

But that was written some 2,000 years ago when the people were less enlightened than in this 20th century.

HEALTH AND THE PUBLIC SCHOOLS.

The question of health and sanitation is being emphasized more than ever in the Opportunity Schools that are to be taught throughout Arkansas during the coming summer. It is recognized by the educators that a sound body is necessary for the best functioning of a sound mind. In outlines that have been prepared for the school, periods are provided for daily lessons and practical suggestions in health, with special reference to the cause, prevalence and prevention of malaria and tuberculosis. At the close of each period, a motto has been suggested to be memorized by the pupil and prizes will be given at the close of the school for those who are able to repeat the greater number of these mottoes. Among the mottoes are the following:

“I want to be well.”

“I want to help my neighbor keep well.”

“I will kill mosquitoes and flies.”

“I will breathe fresh air day and night.”

“I will protect my family and neighbors from consumption.”

“I will eat much fruit.”

“I will fix my child a lunch.”

“I will keep my body, my teeth and my nails clean.”

“I will make my house a real home by keeping it clean and fresh.”

“I will try to make my community a clean place to live in.”

“I want my child to have a good soul, a good mind and a strong body.”

“I can serve God and my country by keeping well.”

Abstracts.

A RETROSPECT AND A RECORD: AN EARNEST OF THE FUTURE.

The topics dealt with by G. E. De Schweinitz, Philadelphia (Journal A. M. A., May 27, 1922), in his presidential address before the American Medical Association are: the Amer-

ican Medical Association, its foundation, organization and reorganization; early achievements in American medicine; progress during the existence of the Association; development in treatment of disease. Of this topic De Schweinitz says: "The development of a medical literature written by American authors during the last sixty years has been characterized by ever-increasing excellence of the output, representing the results of clinical and clinico-pathologic observation and research. Among these notable contributors the medical clinicians take prominent rank, including neurologists and pediatricians. More recent developments are also discussed briefly. Medical education, especially the part played by the Association in its development and improvement, is discussed at considerable length. He urges alteration of individual teaching and co-operative work so that the head of each department shall personally and practically become acquainted with the scheme of instruction carried out by every other department which has vital relation with his own, and present his material accordingly, or what he terms "elimination of the 'packet-system.'" He suggests that a plan calculated to obviate this fault could be put in operation by the appointment, for example, of a member of the faculty who, in addition to his scholastic duties, should be a liaison officer, and who should be empowered (he must be a man of tact, intelligence and force) to supervise the co-operation suggested, correlate the instruction, and put out of existence the "packet-system." The dean of a faculty, even if he has "authority to carry out fair ideals of medical education," is too burdened with executive and business duties to fulfill satisfactorily the functions of a co-ordinating officer defined in this regard. It is just for this reason that certain medical institutions have appointed, in addition to the dean as ordinarily employed, a dean of students. What is needed, however, is a dean of teachers, not in name, but in actual practice. If the student is to be fed properly educationally, he must have a much more evenly balanced diet. Reference is made to graduate medical courses based on university extension services, as they are already in operation, notably in one state. Therefore, where a university system includes a school of graduate medicine, it can carry its education efforts to groups of physicians found in selected localities. Questions relating to this whole matter, that is, in general terms to the

readjustments in medical practice (which, be it remembered, are not only impending, but are in operation), with due regard to the evaluation of the rights and requirements of the practitioner and the public, complicated as they are, none the less demand investigation, which shall eventuate in their satisfying solution. The trustees of the American Medical Association are now conducting a survey which it is believed will help to solve many of the problems now before the medical profession. The advancement of medical effort, the improvement of medical education, the highest type of medical service in the cure of the sick and injured, and the conservation of health, the protection of medical and public interests, leadership in all the phases of medical activity and the maintenance of ethical standards—these are the agenda of our association.

Personal and News Items.

Dr. G. A. Warren of Black Rock is spending the month of June in California.

The date of the 1922 session of the Colorado Congress of Ophthalmology and Oto-Laryngology has been set for July 28-29.

Dr. C. C. Kirk, Little Rock, has returned from Quebec, Ontario, where he attended the recent meeting of the American Psychiatric Association.

The University of Arkansas School of Medicine, Little Rock, announces the resumption of the junior and senior classes with the opening of the fall session this year.

Recently a physician in one of the eastern States who failed to report a case of pneumonia, was punished by a fine, to say nothing of the loss of time and the inconvenience caused by his appearance before the court.

Dr. Frances Sage Bradley, recently of Georgia, has been appointed Director for Arkansas of Infant Hygiene under the Sheppard-Towner Maternity Act. Dr. Bradley will be located in Little Rock, with offices in State Capitol.

ANNOUNCEMENT.

Am organizing a Post Graduate Hospital and Clinic in Kansas City, Mo., the cost of same will approximate a half million dollars. I want an Internist, Obstetrician,

Urologist, Neurologist, Dermatologist with \$10,000.00 each, who can qualify as clinical instructors. The institution will be of the A-grade type, and operated in keeping with the rules of the American College of Surgeons. Write Dr. W. A. Harroun, 516 Chambers Bldg., Kansas City, Mo. (Adv.)

Obituary.

DR. J. A. WYETH—Dr. John Allen Wyeth died at New York City, May 28, 1922, aged 77. Dr. Wyeth graduated at the University of Louisville Medical School in 1869. He then became surgeon to a railroad construction company in Arkansas; but after one year gave up the practice of medicine and engaged in steamboat and contract work and in 1872 erected a public building for the County of Woodruff, Arkansas. In 1872, he moved to New York and in March 1873, received the degree of M. D., *ad eundem* and has resided in New York ever since.

DR. J. C. CLEVELAND—Dr. John C. Cleveland died at his home in Bald Knob June 3, 1922, aged 70. He was a prominent Republican and a practising physician for forty years and ten times mayor of Bald Knob. He was postmaster of his home town previous to the first Wilson administration and was known throughout White County and in many other parts of the State.

Dr. Cleveland stood high in medical organizations and held important positions in his local and State societies.

He is survived by his wife and three daughters. He also leaves a stepdaughter and three brothers.

The body was buried in Oakland cemetery, Little Rock.

County Societies.

POPE COUNTY.

(Reported by L. D. Berryman, Sec.)

The Pope County Medical Society met at Russellville April 25, 1922.

The following officers were elected for the ensuing year: H. S. Drummond, President; Jerome Wright, Vice-President; L. D. Berry-

man, Secretary-Treasurer; H. S. Drummond, Delegate, and G. W. Jones, Alternate.

Dr. Robert Caldwell of Little Rock was present and read an interesting paper on, "Organized Medicine."

We had a good attendance and the local physicians entertained the society with a banquet.

Drs. Love, Brooke and Sweet were visitors from Dardanelle.

The society meets monthly and the next meeting will be at Atkins.

LAWRENCE COUNTY.

(Reported by A. J. Clay, Sec.)

The Lawrence County Medical Society met in regular session May 3, 1922, at the Methodist Church, Hoxie.

Clinical cases of "Premature Births," "Subglenoid Dislocation of Shoulder," and "Food Idiosyncrasies" were discussed.

R. H. Guthrie read an interesting paper on "Ludwig's Angina." Discussion opened by G. A. Warren.

C. C. Townsend read a very excellent paper entitled, "Anent Labor in Normaleyleville."

A motion was made, seconded and carried, to have Dr. Townsend read his paper at the State Medical meeting in May or have it published in the Journal.

A vote of thanks was extended to Drs. Guthrie and Townsend for their papers.

Present: Ball, Clay, Guthrie, Hatcher, Swindle, Townsend and Warren.

PRAIRIE COUNTY.

(Reported by J. C. Gilliam, Sec.)

The Prairie County Medical Society met at DeValls Bluff April 27, 1922.

Members present: Lynn, Porter, James Parker, Luke Parker, Adams, Hipolite and Gilliam. Visitors, Ed McKnight, T. B. Bradford and T. J. Stout, Brinkley; J. P. Runyan, W. A. Snodgrass and L. V. Parmley, Little Rock.

Drs. Stout, Snodgrass, Runyan and Gilliam read papers which were enjoyed and thoroughly discussed, many points of interest being elicited. Dr. Bradford made an interesting talk on "Cancer Research."

Among the enjoyable things was the fish dinner, that was served by the society; the old-fashioned hand shakes and renewal of ac-

quaintances, all of which were especially agreeable.

We appreciate the contribution of our visitors to the interest of our meeting and invite them to come again.

HOT SPRING COUNTY.

(Reported by C. Prickett, Sec.)

The Hot Spring County Medical Society held its regular monthly meeting Tuesday, June 6 at 3:00 p. m., at Malvern.

Members present: Bramlitt, Williams, McCray, Geary, Hodges, Phillips and Prickett. Visitors, Drs. J. L. Greene, Jno. Proctor, O. Biggs, J. H. Chesnutt, D. C. Lee, W. F. Porter, O. C. Wenger, J. L. Jelks and W. T. Wootton, of Hot Springs.

A case of dislocated back was reported by Dr. Williams, in an old man, caused by being thrown from a wagon in a runaway. This was followed by a general discussion.

Dr. Hodges reported a case of acute encephalitis in man following a trivial injury to the head; disease coming on some time after the injury. Extended discussion followed.

A very timely talk was made by Dr. Wootton, our Councilor, along the lines of organized medicine, co-operation among the doctors and educating the public in things pertaining to public health and fraudulent nostrums.

Other interesting talks were made by Drs. Wenger, Biggs, Proctor, Greene, Chesnutt and Porter.

After a few words of welcome by Dr. Williams the guests were served with a short course luncheon and smoker. All reported a very enjoyable time. Meeting adjourned until the next regular meeting date.

UNION COUNTY.

(Reported by J. G. Mitchell, Sec.)

On Tuesday evening of May 9, 1922, the Union County Medical Society met at the Cafeteria De Luxe. The meeting was presided over by Dr. J. W. Slaughter, president.

One of the main features of the evening was the excellent luncheon served us by the management of the cafeteria, which was offset by a delicious, large pound cake, presented by Mrs. J. A. Moore, in honor and recognition of Dr. Moore's birthday. From the way the members present tried to demonstrate their appetite for cake, it must have been a real success as an example of Mrs. Moore's skill in baking cakes.

A short talk was made by Dr. Wharton, making it known to the members the real significance of the presence of the cake. Dr. Moore responded by expressing his appreciation of the pleasant surprise, and giving us a short autobiography of his past professional life, all of which he has spent as a member of the Union County Medical Society.

Dr. McGraw and Dr. Mahoney each gave us a very interesting short talk on public health matters pertaining to the town and county. Dr. McGraw is our newly appointed City Health Officer, and Dr. Mahoney is our County Health Officer.

Dr. Carter read a short paper on "Unguenta," which afforded considerable humor for the evening.

Dr. White reported a clinical case of appendicitis and hernia which was very interesting and brought out considerable discussion. After this the meeting adjourned.

Book Reviews.

THE PHYSICIAN HIMSELF FROM GRADUATION TO OLD AGE.—By D. W. Cathell, M. D., Baltimore. This is the vastly improved Crowning Edition. Published by Dr. D. W. Cathell, Emerson Hotel, Baltimore, Md.

This unique work has been highly extolled by many prominent physicians because their success in the medical field has been made more certain, more rapid and more complete by the aid of the suggestions in this book.

It is extremely interesting and deserves a wide circulation.

TUBERCULOSIS IN INFANCY AND CHILDHOOD.—By J. Claxton Gittings, M. D., Frank C. Knowles, M. D., and Astley P. C. Ashhurst, M. D. Illustrated. Published by J. B. Lippincott Company, Washington Square, Philadelphia. Price, \$5.00.

This book gives the lectures delivered at the Children's Hospital, Philadelphia, under the auspices of the Philadelphia Pediatric Society. It is a splendid presentation from the standpoint of the pediatrician. Throughout the book the treatment of special forms of tuberculosis is considered seriatim; but the final chapter gives a full and detailed description of the management and treatment of the tuberculous child.

THE EIGHTEENTH AMENDMENT—And the part played by organized medicine. By Charles Tabor Stout. Published by Mitchell Kennerly, 489 Park Avenue, New York. Price, \$1.50.

The purpose of the book is to let the public know the facts to a question of national concern, the real meaning of the prohibition

movement and its relation to organized medicine and other interests. The author says "to have a better understanding of the whole subject of prohibition, we must first have a better understanding of alcohol itself, its uses and abuses.

"We must discard any false impressions acquired from passing observation of the drunkard of the saloon and set ourselves to learning the body's natural needs, not to the seclusion of the laboratory, but in everyday life of the American people."

NEW AND NONOFFICIAL REMEDIES, 1922, containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1922. Cloth. Price, postpaid, \$1.50. Pp. 417+XXXIV. Chicago: American Medical Association, 1922.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually presents the American medical profession with disinterested, critical information about the proprietary medicines which are offered to the profession, and which the Council deemed worthy of recognition. In addition to the description of proprietary preparations, the book contains descriptions of those nonofficial remedies which the Council deemed deserving of consideration by the profession.

To be admitted to New and Nonofficial Remedies it is required that the quantitative composition of the article be declared, that the therapeutic claims made in marketing the article must be truthful and that the preparation has, or gives promise of having, therapeutic value.

The descriptions of articles are based in part on investigations made by or under the direction of the Council and in part on information submitted by the manufacturer or his agent. However, statements made by those interested in the manufacture or marketing of an article are accepted only if they are supported by substantiating evidence or conform to generally accepted facts. Physicians, therefore, may use the book as a guide in determining whether or not a given proprietary preparation is indicated in the treatment of their patients. The interests of the patients and of the physicians themselves will be safe-

guarded by following the suggestions made in The Journal of the American Medical Association ("Helping the Council;" J. A. M. A., November 6, 1920, p. 1275) and by giving no consideration to any proprietary medicinal agent which has not been admitted to New and Nonofficial Remedies.

A valuable feature of the book is the grouping of preparations in classes. Each of these is introduced by a general discussion of the group. Thus the silver preparations, the iodine preparations, the arsenic preparations, the animal organ preparations, the biologic products, etc., each is preceded by a general, thoroughly up-to-date discussion of the particular group. These general articles compare the value of the products included in the group with similar pharmacopeial and other established drugs which it is proposed that these proprietary preparations shall supplant.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book) are given references to published articles dealing with preparations which have not been accepted. These include references to the Reports of the Council, to Reports of the A. M. A. Chemical Laboratory and to articles which have appeared in The Journal of the American Medical Association.

New and Nonofficial Remedies should be in the hands of all physicians who prescribe drugs. The book contains information about the newer materia medica which can not be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

THE LAW OF VITAL TRANSFUSION AND THE PHENOMENON OF CONSCIOUSNESS.—An account of the necessity for and probable origin of sex, and the development of the CONSCIOUS STATE in the evolution of the organic world with a preliminary statement of fundamental cosmical principles. By Charles J. Reed. Published by Occidental Publishing Company, San Francisco. Price, \$1.50.

This book will interest the medical profession, as it gives for the first time an account of the necessity for and origin of the development of sex.



ROBERT CALDWELL, M. D., F. A. C. S.
Little Rock
President Arkansas Medical Society, 1922-1923

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Original Articles.

THE PHYSICIAN; HIS PROFESSIONAL AND CIVIC DUTIES.*

Chas. H. Cargile, M. D., Bentonville.

Chauncey M. Depew, the inimitable story teller, in his recently published autobiography, relates a story of a friend of his who, having made a great success as a railway executive, was made head of a merger of several important lines. Soon after his promotion he went back to his home town, and while sitting around the fire in the country store, was approached by the storekeeper in this wise:

"Melville, they tell me that ye be getting \$10,000.00 a year; is that so?"

Melville admitted that this was true.

"Waal, now," said the storekeeper, "don't it beat all what cheek and circumstances will do for a feller?"

I do not know whether to ascribe my election as President of your organization to my cheek or circumstances; but, in either case, it becomes my duty to address you in some manner.

My love for my country, my profession, my society, and for you, my fellow members, has prompted me to strive to make this address truly helpful to you in performing the duties of your high calling. Hence, the selection of my subject: "The Physician; His Professional and Civic Duties."

This implies that we owe something to our profession and the world at large, and should do whatever makes for the betterment of mankind; likewise, it is equally our duty to oppose that which is detrimental to moral, spiritual and material welfare. It was not intended that we should live for, and within, ourselves. Society, business and all else are so linked up with each other that he who tries

to do so will pass into eternity unhappy and unlamented.

Would we be truly successful physicians, we should learn that the building up of a large practice, and the accumulation of much wealth, though legitimate as these may be, should not constitute our main purpose in life. Rather let us be guided by our professional and civic duties.

The highest ideals of our profession are best attained by erecting a standard to which all can subscribe and aspire. This is made difficult by reason of the varying viewpoints of the many of us.

There is usually a long stretch between idealism and conservatism. The mean will be the aim, which, of course, involves compromises.

We who have been long in the profession and witnessed many innovations find it difficult to adapt ourselves to present conditions. We are liable to the common error of old people of viewing new things with incredulity. On the other hand, younger people are equally prone to regard only recent things and theories as tenable. Thus we see that the erection of our ideal standard must necessarily involve many concessions. Let us take it for granted that our ideal calls for an educated, broad-minded, progressive and upright citizen.

The educational advancement in the medical profession, which has characterized recent years should be the pride of every physician; and we should take no backward step, notwithstanding such is being advocated by some on the ground of paucity of physicians. Instead, we should press forward until our average be equal to the best in the world. In this way only can we attain world supremacy in medicine, as we have in many other things. Some of our medical schools equal the best; but by reason of the greater number in proportion to population, and the many with lower grades, our average may be lower.

The American Medical Association, the American College of Surgeons, and other or-

*Presidential Address read before the annual meeting of the Arkansas Medical Society at Little Rock, May 17-19, 1922.

ganizations are to be commended for their parts in this advancement.

It will be a fortunate day for American medicine when the commercial schools shall have been supplanted by sufficient number of adequately endowed ones with high curricula.

We should be broadminded and liberal, ever recognizing and appropriating whatever may be beneficial to those whom we serve, regardless of its origin. If it be a secret or patent remedy, let us analyze, manufacture and use it. Paregoric, Dover's Powders, Aspirin, Cataplasma Kaolini, the salvarsan group, and many others of our best remedies were originally secret. We are not truly and broadly eclectic as we claim, as long as we eschew good remedies because they were originated by other cults. For long our school of medicine has recognized Psychotherapy, Massage, Swedish movements and kindred things, which were not duly appreciated, indeed, were permitted to almost pass into oblivion until revived by others. Very fortunately they are again becoming parts of our regular curricula. By thus neglecting them we made it possible for others to revive them as something new, and somewhat to our chagrin.

Let us not be narrow in our conceit, but open-minded, ever ready and eager to learn new truths.

Another characteristic of an ideal physician is progressiveness. Not all of us can be Listers, Pasteurs, Carrels, Mayos, Criles, or Oslers; but each of us could accomplish more than we do in the various fields adapted to our different capacities.

We should be better students, wasting less of our time, keep and study records and make useful deductions therefrom. Lessons thus worked out make more lasting impressions.

It is our duty, and should be our pleasure, to belong to medical organizations, attend their meetings, and actively participate in them. We should do post-graduate work and avail ourselves of clinical opportunities.

Frequent reading of the Code of Ethics of the A. M. A would be good for us. For years I have kept in my office a framed copy of the Hippocratic oath; and frequently read it with profit.

Could its author return and see the profession and all that pertains to it in the present day, what amendments would he add? Perhaps his first would be along with his condemnation of criminal abortion, one warning

against the possible abuse of the x-ray and radium in sterilizing women for no reason other than the preventing of pregnancy and the acquiring of tainted money. Let us hope that these great discoveries be not so abused that the total of evil fruits may not outweigh the good.

Doubtless "the father of medicine" would be astounded by the prevalence of fee-splitting, which evidently did not exist or he would have included it in his list of "Don'ts." How many of us here today can recall the fact that we have been in the profession many years before we first heard of this wrong and some of the concomitant evils which stigmatize us in the public minds?

It should be the cause of sincere humiliation to the medical profession that along with our boasted progress of fifty years there have been accompanying evils of no less magnitude. This calls for serious consideration of the question whether we have not overdone the matter of so-called professional courtesy toward men who are notoriously engaged in commercializing the profession. By so doing, we discredit ourselves.

Our policy of silence and inaction toward quacks who play on the sensibilities of the public by advertising that "the knife is dangerous in cancer" is wrong. The public, neither seeing nor hearing denial from us, accepts the falsehood as true. Unfortunately, the propaganda of the cancer research committee and scientific papers and discussions of the matter do not reach the public as they should. We should individually and collectively try to correct this.

State medicine, social insurance, workmen's compensation, and some other matters call for consideration; but are omitted because of lack of space and familiarity with them.

Group medicine, at present in the limelight, has much to commend it, both for the patient and the profession, if ethically conducted.

With pardonable pride the medical profession can claim to be the most charitable, its members being the only people who are industriously hunting a club with which to brain their own business, obviously referring to the fact that they are always found in the forefront in preventing disease.

We read with self-felicitation that in the recent meeting of the American Bar Association, the lawyers, in trying to bring about progress and reform among themselves, com-

plimented the medical profession for having been more progressive than they in educational and professional requirements.

Organized medicine in our State is not what it should be. The weakest point in it is the secretaryship of the county units. The success of any organization hinges on the secretary more than all else. An indifferent and incompetent one, more or less, spells failure. On the other hand, a wide-awake one is sure to bring success. Usually, the older and more experienced members shirk it, and a young and inexperienced one is chosen because he has more time. Often this is done over his protest, and accordingly he ignores it or acts so indifferently that the next year another is chosen, with the same results, and so on indefinitely. It would be better, if by increasing county fees or by voluntary donations, there could be raised a fund with which an active secretary could hire competent clerical help who could attend all meetings. This would be more practicable if all meetings could be held in one central place, it being the home of the secretary and assistant. Unfortunately, this is not practicable in counties with several towns, each of which thinks some of the meetings should be held in it.

It is the source of much pleasure to some of us older members to observe the marked improvement in the personnel of the membership. In no particular is this more noticeable than in the diminished drinking on these occasions.

It is unfortunate for our organizations that we have so neglected its history. Let us hope that the committee appointed at the last meeting is prepared to report progress, at least.

It is with pleasure that we note that the long continued error in the serial numbers of the annual meetings has been corrected.

Our Secretary makes a good suggestion, which it is hoped will be adopted. It is that we discontinue having an address of welcome and response before the house of delegates at its first meeting, as required by law. Now that the house of delegates and general meeting open on the same day, it is unnecessary and time-consuming to have two such ceremonies on the same day. Accordingly, he and I have taken the responsibility of omitting the one before the delegates this time, believing you would approve of it.

The foregoing relates to ourselves and our professional duties. What follows pertains

to us as citizens and should be equally applicable to laymen.

Would we attain to the standard described early in this paper, we must ever be on the alert for opportunities to promote whatever makes for the moral, the material and the governmental welfare of the world. Let us not forget that neither individual nor government can shirk these duties without paying the penalty.

The prohibition laws impose certain duties on the physician. Unfortunately, as in other governmental departments, so much red tape is vexatious, and sometimes creates prejudice against law enforcement. It is to be regretted that there are some physicians who advocate the manufacture and sale of intoxicating liquors. Let us not be discouraged, but press forward, knowing that victory will surely be ours in the end.

This is not the time and place to discuss the moral, economic and health phases of this question. However, with every democratic government in the world menaced by anarchy, it is most opportune to remind loyal Americans who are liquor advocates that in helping to promote the present day wet propaganda they are unintentionally aiding enemies of our government who constitute the majority of the liquor forces. In the main the latter are thugs, exconvicts, anarchists, I. W. W.s, Bolsheviks, enemies of our government during the war, and members of the numerous secret organizations composed mainly of foreigners, who are ever anxious to ally themselves with anything that helps to defeat law enforcement and undermine our government.

With them, anything to thwart the will of the people and weaken the government, knowing full well that once a link is broken the whole chain is weakened. Should they succeed in the present undertaking they would quickly attack other links and so on to the destruction of the whole. Ere it be too late, it would be well for loyalists who are liquor advocates to consider well their characters and sinister designs against our government.

With the smoke and roar of cannon of the great late war hardly passed, the world is most seriously threatened with even a greater one; and should it come, our own country would necessarily become involved, as in the late one. With the world upside down, with murder and banditry stalking over the land almost unchallenged, with corruption domi-

nating many courts and legislative assemblies, with enemies within and without undermining the stability of our government, the demand for upright and courageous manhood is greater than ever before, and calls for the best that is within us.

The physician's professional relation toward the public peculiarly provides him with opportunities and influences, and makes it possible for him to be especially helpful in public affairs.

May we of the medical profession, individually and collectively, every be ready to uphold right and oppose wrong, especially under the present day threatenings, which calls for courageous action.

What is more disappointing than to hear a citizen decline to perform pressing public duties for the reason that he cannot afford it lest he injure his business. What would be the fate of his business if all do likewise? Strange, indeed, that one can be content to live in a town, county, or State, for many years and all the while prosper, and be the beneficiary of everything possible, without contributing the least in means or effort in the promotion of the public welfare.

In conclusion, permit me to urge that we so meet the moral, civic and political duties that to be a member of the Arkansas Medical Society will become synonymous with high-class citizenship. Citizen first—physician next.

IMPORTANCE OF BIRTH AND DEATH REGISTRATION.*

G. A. Warren, M. D., Black Rock.

Our vital statistics law was enacted by the Legislature of 1913; but as most of you know, it did not become operative until February, 1914, and we have had the law in operation for more than eight years, yet I doubt if sixty per cent of the births and deaths are reported now.

We have a vital statistics department in the State Government and maintained by the State, and if we expect it to be worth anything, we should make reports of all our births and deaths. Doctors should be law-abiding citizens, and should, above every other class of citizenship, get behind and push anything that is for the advancement of the commonwealth; especially when it deals di-

rectly with the lives or welfare of its native citizens.

There were few communities during the draft of the World War, that did not have one young man, or more, who avoided the draft by making false statements as to his age, or having his parents make false entries for him. They even went so far as to change the family records in the Bible. I believe ninety per cent of the doctors were loyal and patriotic citizens, and that an evasion of this kind is repulsive to them; yet we were forced to submit to it, for there were few instances where false statements made by a party as to his age, could be disproved. If we had had an efficient vital statistics department twenty years prior to the draft, date of births could have been easily verified.

This is not only important for military duty, but for anything that pertains to establishing legal citizenship, such as voting, taking charge of a heritage, and so on.

Every doctor in Arkansas, who does any obstetrical work at all, should see that every birth and death among his patrons is reported, whether he attends at such cases or not.

There are many births that have no doctor or midwife present, and yet many of these made efforts to get a doctor. There are many persons who die without being sick or having the services of a physician, just before or at death, yet many families will send for a doctor even to see a dead person, but this is not always done. "Death waits for no man," and this may just as truthfully be said of birth.

When labor pains come a woman has no power to stop or delay them. Babies have been born from the beginning and will be to the end of time, without the presence of doctor or midwife; but it is just as important to see that these cases are reported, as to make reports of the cases we attend. Whether it be one day, one month, one year or longer, before we learn of the birth, it is our duty to get the data and make the report. I do not believe there has been in my community during the past eight years one instance where these unattested births have not been reported. Some times it is more than a year before I know about them, yet I get the data, and make the report as soon as I learn of it.

Since January 1, 1922, I have reported two such births, one of them a child a year old. This is not true of the cases attended by physicians in my township. Many of them go unre-

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

ported, for it is not ethical nor good taste for one doctor to meddle with the cases of another: besides the law makes it the duty of the doctor attending the birth to report it, and he is subject to a fine for not doing so. I do, however, get the reports of cases attended by midwives when they fail to send them in. I can do this without having the appearance of meddling, and besides some of our so-called midwives are illiterate, and cannot make out a birth report, and then some of them do not know the law requires it. I do not want to prevent these neighbor women from officiating at the birth of children, for I have known of several cases during the past eight years, where a doctor's services could not be had, and the woman at this time is entitled to all the help her neighbors or an old granny woman can give her.

It is a lamentable fact that puerperal fever may follow these cases; but no more so than if the husband or even the woman herself had to look after the case.

Just now, the Sheppard-Towner Act, or Infant Welfare Act, passed by Congress, during this year, is to become effective in the States that co-operate. States not in the registration area may not be permitted to qualify. Arkansas is not in that area today, and why? Answer: Because the doctors have not done their duty in making out these reports.

There is now a campaign by the women of the State for the purpose of collecting the reports for 1921, in order to put Arkansas in the list of States having efficient birth and death reports.

These club women propose to make a house to house canvass to get all unreported births and deaths for the year 1921. I court such a campaign, for I do not believe there will be found in my district a single case not reported, except where some doctor failed to report it. All of mine and all that I can find not attended by a physician have been reported.

Should the women succeed in completing the report of 1921, unless we and the doctors who are not members of this society henceforth do our full duty, the 1922 reports will be just as unreliable.

Let us determine to do our whole duty in this matter, and go back to January 1, 1922, for all delinquents, that we may not have reported.

If we do this, during this year and succeeding years the women will have no occasion to make a birth and death campaign.

Again we should be sure to get the names of all babies, even if we have to make the supplemental report. If we will fill out and leave with the parents one of the name blanks (V. S. No. 16-20M), for the name to be supplied later, I believe we will always get the name.

By doing this the parents realize the importance of their naming the child early, then sending it in.

I find some doctors did not know we have such a blank. If your registrar does not supply you with these name blanks, write to the department for them, for it is important to have all the names.

A birth report without the name is only half made.

The doctor should never be satisfied to turn in a report and leave the name off. It is his duty to the registrar to get these names. I speak also as a registrar, for I took the position in our township because no one else would have it, and while there is no remuneration in it to speak of, yet I believe that the doctors should see that each district has an efficient registrar, and if some layman will not accept the position, the doctor ought to take it.

A FEW OBSERVATIONS ON MALARIA IN INFANCY.

W. A. Mulherin and F. X. Mulherin, Augusta, Ga. (Journal A. M. A., June 17, 1922), state that malaria presents a different clinical picture in infancy and up to three years of age from that seen in the adult. The younger the patient, the more decided is the difference. Periodicity in subjective and objective symptoms is more frequently absent than present. Fever is oftener remittent, irregularly intermittent or absent, than regularly intermittent. Enlargement of the spleen is absent in fully 30 per cent of cases of malaria in infancy. Sterilization with standard treatment of more than 90 per cent of malaria cases, they believe to be questionable. Ultrascientific treatment of malaria, "no malaria parasites found in the blood, no quinine to be given," is wrong in principle and in practice.

THE JOURNAL

OF THE

Arkansas Medical Society

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WILLIAM R. BATHURST, SECRETARY-EDITOR
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

Editorials.

OUR NEW PRESIDENT.

Dr. Robert Caldwell, elected President of the Arkansas Medical Society, is one of the first—perhaps the first—Northern man to head the State Society. He was born and educated in Indiana; began the practice of his profession there, coming to Little Rock in 1909. He has made good abundantly in his adopted State. He limits his practice to eye, ear, nose and throat, in which he has specialized for the last fifteen years. He is recognized as one of the leading specialists in the State and was the first person in Arkansas to do high bronchoscopy.

Dr. Caldwell was born in 1876, in Martinsville, and attended the public schools in his home county and was graduated from Acton High School in his native State in 1895. Later he attended Central Normal College at Danville, and received the degree of Doctor of Medicine from the Hospital College of Medicine in 1901, at Louisville, Ky. In the same year he began the practice of medicine at Flat Rock, remaining there three years when, in 1904, he moved to Brownstown, Indiana, remaining there until 1907. During his residence there he married Miss Monta Almeroth of Flat Rock.

In March, 1907, he relinquished the general practice of medicine and was appointed house surgeon to the George Knapp, Eye, Ear, Nose

and Throat Hospital at Vincennes, Indiana. His career as a specialist has continued ever since. After two years with the Vincennes institution he came to Little Rock and associated himself with Dr. C. C. Stephenson who, however, moved to California the same year and Dr. Caldwell continued alone in the same line of work in the Elks Building.

Dr. Caldwell has done post-graduate work in Chicago, New York, London, Berlin and Vienna, and only last fall he spent a month in Philadelphia clinics. It will be seen, therefore, that he has kept fully abreast of modern progress, and scientific development. He is a faithful attendant and worker at the meetings of the Pulaski County Medical Society. Has been twice elected to the presidency in his local society within nine years. He served as Councilor in the State society six years, and has been chairman of the Council the last four years. Besides his affiliation with the county and State Societies he is a member of the American Academy of Ophthalmology and Oto-Laryngology and is a Fellow of the American College of Surgeons. Also he holds the chair of Clinical Professor of Nose and Throat Diseases, University of Arkansas School of Medicine.

In honoring so distinguished a specialist the Arkansas Medical Society has signally honored itself and the Journal bespeaks for him a successful and brilliant administration.

THE PRESIDENT'S ADDRESS.

In the early portion of his annual address Dr. Cargile relates a story told by Chauncey M. Depew, of a successful railway magnate, who on visiting his old home town, one whose local store-keepers accounted for the great man's success as the result of "cheek and circumstances." Dr. Cargile cannot point a moral and adorn a tale "by suggesting that he reached the presidency of the Arkansas Medical Society by cheek or circumstance. The society picked a faithful member not only thoroughly qualified by eminently deserving. The young physician may well take heed of Dr. Cargile's insistence that the profession cultivate broad-mindedness, recognizing and appropriating all that is worthy. He would have us, like Paul, "try all things; hold fast to that which is good." He names many remedies and methods of treatment which have been recognized and truly says that all cannot be Listers and Pasteurs, each could

accomplish more if the average doctor wasted less time, studied more, kept in touch with the best scientific thought and experiment.

Dr. Cargile's views on prohibition may not be accepted by all, nor his opinion that non-enforcement of that particular law is the cause of the widespread crime wave. The great Montaigne, 400 years ago, commented thus: "I am further of the opinion that it would be better for us to have no laws than to have them in so prodigious numbers as we have." Some of our most eminent modern statesmen have expressed the opinion that the feeling of unrest and dissatisfaction is due to the ever-increasing paternalism in law-making, especially in the adoption of laws circumscribing man's personal liberty on matters which take from the State's police powers. The crime wave is so serious a problem that a determined effort should be made to ascertain the real cause and remedy. Dr. Cargile's address is printed in full in this issue of the *Journal* and we recommend it to our readers, assuring them they will find in it matters for consideration and timely suggestions worthy of adoption.

Abstracts.

SOME POINTS IN PHYSICAL DIAGNOSIS.

It is almost universally believed that movable dullness in the chest is a sign of the presence of fluid. David Riesman, Philadelphia (*Journal A. M. A.*, June 24, 1922), points out that, in some instances, movable dullness is produced by another cause. What seems to be fluid is, in reality the liver changing its position. When the patient is sitting up or standing, the liver is found to be one or two interspaces higher than it is when he is lying down, a striking change in resonance being in consequence produced. Riesman believes that when this phenomenon occurs, it is due to a softness of the liver, causing it to rise when the patient stands up, and to fall when he lies down. It is not impossible, also, that the state of tonus of the diaphragm is an additional factor in its production. In order not to be misled, it is necessary to locate carefully the apex beat, and to determine whether or not it is displaced to the left. One must also look for movable dullness in the axilla, as well as in front; and in very obscure cases recourse must be had to the roentgen

ray or to tapping. In a number of obscure cases of suspected gallbladder disease, the ordinary method of eliciting tenderness often proves fruitless. The discovery of a tender area would greatly aid in the diagnosis. Riesman has the patient take as deep a breath as possible, and hold it. Then, suddenly, he strikes a quick but not hard blow over the upper part of the right rectus muscle, with the ulnar side of the hand. If there is any disease of the gallbladder, the blow will cause a sharp pain. The same method of ulnar percussion is applicable to the determination of sensitiveness over the kidneys. By striking the loin at right angles to the long axis, it is possible to localize pain due to stone or to inflammation in and about the kidney. It is often of interest to determine whether or not an aortic murmur is transmitted into the neck. By the customary method of placing the stethoscope over the cervical vessels, a murmur is at times created by pressure. Even a very gentle application of the stethoscope may produce a murmur. To avoid this source of error the stethoscope, which must be either a Bowles or some other form of diaphragm stethoscope, should be placed over the clavicle. If the murmur is a transmissible one, it will be well heard all along the bone, where no artery can possibly be pressed on. Timing heart murmurs is not always easy. This is particularly true of mitral murmurs. Several years ago Riesman described a method of "transdigital auscultation." To practice it, it is necessary to employ a diaphragm stethoscope, and not one of the bell type. The index or middle finger is flexed at a right angle, and its tip is placed directly over the apex beat. The stethoscope is then laid on the horizontal phalanx of the flexed finger. It will be found that murmurs may be heard nearly as well through the finger as when the stethoscope is placed directly on the chest.

PROGRESS IN THE HANDLING OF CHRONIC PEPTIC ULCER.

Duodenal ulcer is treated satisfactorily by surgery according to William J. Mayo, Rochester, Minn. (*Journal A. M. A.*, July 1, 1922), in approximately 95 per cent of cases, although in 1 or 2 per cent of these a second operation may be required. The ulcer is not associated with cancer liability. The average operative mortality in cases of duodenal ulcer, including the acute and chronic cases, is under

2 per cent from all causes; and, as the part of the duodenum usually involved is merely the vestibule of the small intestine, permanent interference with function is slight. In cases of gastric ulcer, satisfactory results are obtained by one operation in more than 85 per cent. In the remaining cases, a secondary operation, preferably resection, which eliminates, to a great extent, future ulcer possibilities, brings the surgically satisfactory group of gastric ulcers well above 90 per cent, but there is a definite cancer liability in the years to follow. The average mortality in the operative treatment of cases of gastric ulcer, including the acute and chronic cases, is about 3.5 per cent. The stomach has important functions to perform and a certain amount of permanent crippling may result. In about 50 per cent of the patients who fail to obtain satisfactory relief, the difficulty is fundamental and can be relieved by medical management. The other 50 per cent must be classified as surgical failures due to faulty mechanics, and will require secondary corrective surgical procedures for relief. The patients' general condition must be considered and rational habits of living established. The elimination of all sources of focal infection is also an essential measure.

Personal and News Items.

Dr. H. L. Rains of Bay has moved to Okmulgee, Okla.

Dr. Clyde Ramey, of Sherrill, has moved to Haskell, Okla.

Dr. R. R. McHenry has moved from Rogers to Seligman, Mo.

Dr. C. B. Callen of Huntsville, has moved to Fayetteville.

Dr. E. A. Baggett of Dierks has moved to Fort Gibson, Okla.

Dr. C. T. Price has moved from Cash to Point, Texas.

Dr. and Mrs. Henry H. Niehuss of El Dorado visited in Little Rock this month.

Dr. V. T. Webb, a recent interne at St. Vincent's Infirmary, has opened offices at Fourth and Main Streets.

Drs. Hall, Higden; C. J. March, Fordyce; Sam G. Daniel, Marshall, visited in Little Rock this month.

Dr. and Mrs. Fay Jones of Little Rock have returned from a bridal trip in the North and East.

Craighead County Medical Society entertained its members and guests at Lake City, July 14, 1922.

Pulaski County Medical Society entertained with a basket lunch and swimming party, July 10.

Dr. R. C. Kory, recently of Brazil, Indiana, has returned to Little Rock, and has secured an office in the Exchange Bank Building. His practice will be limited to diseases of the eye, ear, nose and throat.

WANTED—A few Book Agents to sell the new Crowning Edition, of the celebrated Book on The Physician Himself. Excellent business chance. Address the author, D. W. Cathell, M. D., Emerson, Hotel, Baltimore, Maryland. (Adv.)

Dr. St. Cloud Cooper of Fort Smith, President of the Medical Association of the Southwest, announces that Dr. Wm. H. Bailey of Oklahoma City will succeed Dr. F. H. Clark as Secretary of the Association, and next annual meeting will be held October 16, 17, 18, at Hot Springs.

The Division of Venereal Diseases of the United States Public Health Service has arranged with several prominent syphilographers and genito-urinary surgeons whereby the advice and counsel of these authorities is to be made available to general practitioners. The plan is referred to as "Consultation by Correspondence."

The method of utilizing this service is for private practitioners who have under their care any cases of venereal infection which they wish to describe to a specialist and ask for advice in regard to treatment or to the method of procedure in handling the case, to send to the State Board of Health a letter setting forth all the data which they wish brought to the attention of the proper specialists. These letters will be forwarded to the Public Health Service who in turn will secure an answer to the communication from the best known specialist on the particular phase of

the subject discussed in the communication from the private practitioner. It is believed that this sort of correspondence between private physician and well known specialists will be of material benefit in many cases. This service is, of course, entirely free of charge.

Announcement.

Arkansas State Committee the American Society for the Control of Cancer.

The "Reward for Courage," the Educational Movie of the American Society for the Control of Cancer, has been received by the State Committee and was shown in Little Rock Sunday afternoon, July 9, to more than a thousand people. The picture presents the cancer problem in a delightful manner and has brought about a great deal of favorable comment.

The picture was sent to Brinkley July 17, and will be shown in every county in the State with the following itinerary:

Dr. T. B. Bradford, Brinkley.
 Dr. J. S. Jenkins, Pine Bluff.
 Dr. E. E. Barlow, Dermott.
 Dr. G. G. Altman, Helena.
 Dr. Thad Cothern, Jonesboro.
 Dr. G. A. Warren, Black Rock.
 Dr. S. G. Daniel, Marshall.
 Dr. E. F. Ellis, Fayetteville.
 Dr. John Stewart, Booneville.
 Dr. Grayson Tarkington, Hot Springs.
 Dr. Sheppard Moore, Arkadelphia.
 Dr. Don Smith, Hope.
 Dr. Preston Hunt, Texarkana.

The above men are the District Supervisors and will appoint a chairman in every county in the State, the county chairman to arrange for the exhibition of the picture. Every doctor and nurse in the State should make it a point to see this picture and urge their friends to do so.

Marriages.

DUDLEY-McLAIN.—Miss Joyce Dudley of Hope and Dr. C. W. McLain of Gurdon, were married at Hope June 24.

PENICK-JONES.—Miss Annie Marie Penick and Dr. Herbert Fay Hempstead Jones, of Little Rock, were married at Trinity Cathedral, June 15, 1922, Rt. Rev. James R. Winchester officiating.

Obituary.

DR. E. M. POLLETT—Dr. Ewell M. Pollett, Jonesboro, was killed June 16, 1922, near the town of Herget, on the Jonesboro Bay hard surface road when his automobile turned turtle. The deceased was 33 years of age; born at Murray, Ky., July 24, 1888. He is survived by his wife and daughter.

County Societies.

WHITE COUNTY.

(Reported by S. J. Allbright, Sec.-Treas.)

The White County Medical Society met in the courthouse at 8:00 p. m., July 6, 1922.

Members present: Harrison, Hassel, Tapscott, J. L. Jones, Runyan, Jelks, Gray, Purnell, J. B. Hayner, and S. J. Allbright. Visitor, Dr. H. C. Jones.

Two new members were received, Dr. R. L. Little, Judsonia, and Dr. J. B. Hayner, Beebe.

The following papers were read and discussed: "Why Not Rational Obstetrics?" Dr. J. R. Runyan, "Diagnosis and Treatment of Diphtheria," Dr. E. T. Brewer (Read by Dr. J. L. Jones).

After adjournment luncheon was served.

CARROLL COUNTY.

(Reported by C. W. Reagan, Sec.)

The Carroll County Medical Society met May 4, 1922, at Green Forest. Henry Pace, presiding. Present: Pace, John, Bolton, George, Carter, E. Poynor, Hutt, Donaldson and Reagan.

Following the reading and approval of the minutes of the last meeting, reports of interesting cases were discussed.

Memorial resolutions were passed in honor of the following deceased members: I. M. Poynor, Green Forest, and J. W. Poynor, Osage.

The next meeting will be held July 11 at Berryville. The essayists for the meeting will be E. E. Poynor, Green Forest, and A. L. Carter, Berryville.

LAWRENCE COUNTY.

(Reported by A. J. Clay, Sec.)

Hoxie, Ark., June 9, 1922.—The Lawrence County Medical Society met in regular session June 7, 1922, at the office of T. C. Neece, Walnut Ridge. W. W. Hatcher, President, called the meeting to order. The minutes of the previous meeting were read and approved.

Clinical Cases: Alcohol Toxicosis; Gun shot wound of spinal cord; Mumps, plus sequelae, and hare-lip.

C. C. Ball was the essayist for the afternoon, reading a very interesting paper entitled, "Eclampsia-Predisposing Causes and Treatment." A round table discussion followed.

H. R. McCarroll gave an interesting report on the A. M. A. meeting held at St. Louis, especially referring to: Registration: Eye, ear, nose and throat clinics; Sluder's tonsillectomy, Clinic on pediatrics at Barnes Hospital.

J. C. Swindle augmented the report by making a short talk on modern endocrinology.

J. C. Hughes, delegate, gave a report on the State medical meeting, mentioning especially the work showing progress of the Arkansas University School of Medicine and advancement in the control of malaria and venereal diseases.

Marshal Allen, Walnut Ridge, Ark., applied for membership in the society.

Present: Ball, Guthrie, Hatcher, Hughes, McCarroll, Neece, Swindle, Townsend and Clay.

Hoxie, Ark., July 5, 1922.—The Lawrence County Medical Society met in regular session July 5, 1922, at the Methodist Church, Hoxie. W. W. Hatcher, president, called the meeting to order. The minutes of the previous meeting were read and approved.

Clinical Cases: Abortion; Hemophilia Amenorrhea; Abdominal Tumors.

G. A. Warren, the appointed essayist, was not present.

Marshal Allen, Walnut Ridge, was elected a member to the society.

A general discussion about reporting births followed. There seems to be a delay in most reports due to the fact that parents do not name their babies when born. The general opinion of the society was to make the parents and not the doctors responsible for these reports.

All members were urged to promptly make all births, deaths and venereal reports.

All members were invited to a meeting of the Craighead County Medical Society to be held at Lake City, July 14, 1922.

THE FAMILY DOCTOR.

(By Edgar A. Guest)

I've tried the high-toned specialists who doctor folks today;

I've heard the throat man whisper low, "Come on, now let us spray."

I've sat in fancy offices and waited long my turn,

And paid for fifteen minutes what it took a week to earn,

But while these scientific men are kindly, one and all,

I miss the good old doctor that my mother used to call.

The old-time family Doctor! Oh, I am sorry that's he's gone;

He ushered us into the world and knew us every one.

He didn't have to ask a lot of questions, for he knew

Our histories from birth and all the ailments we'd been through,

And though as children small we feared the medicines he'd send,

The old-time family doctor grew to be our dearest friend.

No hour too late, no night too rough for him to heed our call;

He knew exactly where to hang his coat up in the hall;

He knew exactly where to go, which room upstairs to find

The patient he'd been called to see, and saying, "Never mind,

I'll run up there myself and see what's causing all the fuss."

It seems we grew to look and lean on him as one of us.

He had a big and kindly heart, a fine and tender way,

And more than once I've wished that I could call him in today.

The specialists are clever men and busy men, I know,

And haven't time to doctor as they did long years ago.

But some day he may come again, the friend that we can call,

The good family doctor who will love us one and all.

—*The Bucks County Medical Monthly.*

PROCEEDINGS
OF THE
FORTY-SEVENTH ANNUAL MEETING
OF THE
Arkansas Medical Society

Little Rock, Ark., May 17, 18, 19, 1922.

HOUSE OF DELEGATES.

FIRST DAY.

Wednesday, May 17, 1922.

The House of Delegates was called to order by the President, Dr. C. H. Cargile, at 9:30 o'clock a. m.

Invocation by Rev. John Van Lear, pastor of the First Presbyterian Church:

O Lord, our Heavenly Father, we thank Thee for the light of this morning. We give Thee praise for all Thy works. We thank Thee for our land, for our State. We pray Thy divine blessings upon the President of these United States and the Governor of this commonwealth, upon all the judges of our courts and upon all those who have the execution of our laws, that we may be a quiet and peaceful people and that we may reverence the laws and that the great institutions that have been handed down to us by our fathers may be preserved by us and perpetuated through us, with Thy divine favor resting upon us as citizens of this glorious land. We thank Thee, our Father, for this great profession of medicine which Thy Son honored. We thank Thee for the great advancement of human science. We thank Thee for all Thou art working out and working in the minds and hearts of the world and for all the things that make for human betterment. We ask Thy blessing upon these Thy servants in their individual profession, in their great work for humanity. We pray that all their plans for the advancement of human science may be performed, and that they may be alert therein, so that the highest and truest results of this great science shall come down for the betterment of mankind. O Lord, bless us today and fill our hearts with joy and gladness because of the great gift of life with which Thou hast blessed us; and help us to use our lives in the great service of humanity. We ask it all in the name of Jesus Christ, our Lord. Amen!

ADDRESS OF WELCOME FOR THE PHYSICIANS
OF LITTLE ROCK.

Dr. R. F. Darnall, President Pulaski County Medical Society:

Mr. Chairman and Members of the Arkansas Medical Society:

I assume that an address of welcome is very much like any other speech. It may be said of a good speech that it is in many ways like a woman's dress; it must be short enough to be interesting and yet long enough to properly cover the subject. (Laughter.)

If brevity is going to guarantee interest, this effort will meet all the requirements. But my difficulties are more apparent when I come to properly covering the subject.

I am at this time reminded of the story of the two brothers in Kentucky, who had been brought up under the strict Baptist faith, which contemplated a firm belief in the efficacy of immersion for the perpetuation of the good things here as well as hereafter. These boys together owned a goat, no doubt of very humble lineage; but to them a very valuable possession. After some thought it was decided that this goat should not be deprived of any of the opportunities granted to the other members of the family. Finally, it was decided that this goat should be baptized. Everything was put in readiness. The goat was brought to the bank of the stream. Just then the unexpected happened. The goat, running true to form, butted in; and the would-be master of ceremonies found himself submerged. With some difficulty in getting his head above water, he with some spirit, shouted: "Sprinkle him, Johnnie, sprinkle him, and let him go to hell!" (Laughter and applause.)

Before I get too deeply into my subject, I think it would be best that I just "sprinkle the speech and let it go." (Laughter.)

Just now we are taking renewed interest in the origin of man or the descent of man. Many opinions and theories have been forthcoming on the subject; but, after all that has been said, nothing new has been presented. We don't yet know where man came on earth or when man came on earth. It may have been in the Valley of Euphrates, as some are wont to believe; or some other part of Eden, Africa, South America or some other part of the world not now known to man. His coming may have dated from ten thousand years ago or ten million years ago. As to that we don't know.

But, let us leave man where we find him for the time being, and turn to the place where man lives. It may be a comforting thought to some persons to know that, of the total surface of the earth, only about one-fourth of it can be considered strictly dry territory. But since man is neither amphibious nor aquatic, his habitat must be found within that dry one-fourth. (Laughter.) A superficial knowledge of geology is only necessary to convince us that, during the time of the Creation some parts of this one-fourth, further developed than others, perhaps pushed ahead millions of years. Why, we don't know. Those of the inhabitants whom we find in those localities where the soil is productive boast of its fertility. Others are wont to speak in generous terms of the quality of the water; and others speak of the health-giving qualities of the climate. But there is but one spot, one little area in all the face of the earth, 240 miles square, where it seems

that the great Creator gave his undivided attention in providing a suitable place for man to live. It would seem that, at the time of the creation of this favored spot, a super giant held aloft a cornucopia which poured forth without stint the greatest gifts of nature. We have today in one area of 240 miles square some of the greatest gifts that are to be found on this earth. We have in that area the waters of Hot Springs which give the world its greatest health resort. We have the finest of fine diamonds. We have within this area an abundance of gas and oil. We have vast deposits of bauxite with which we supply the world. We have the finest shale, clays, sands, chalk, phosphates and asphaltum. We have in this favored area fifty-six of the fifty-seven known useful metals, including gold, silver, copper, zinc, manganese, antimony and many others.

This, we all know, is the Wonder State. It is the Wonder State today and will be the Wonder State when all those present will have served out their three score years and ten and are forgotten. The wonderful resources of our State are becoming known throughout the world, and each year new people are coming in, with new ideas, new money, new energy and demanding new and better conditions. With the development of these wonderful resources come unusual responsibilities. Are we, as members of the medical profession, prepared to meet these responsibilities and needs in a manner which will reflect credit upon ourselves and be satisfactory to the public? There is this to be said: The permanent wealth of any community depends upon the permanent standard of health of that community. The public naturally looks to the medical profession for the conservation of its health. If we do not respond to our duties, others will rise and take our places and we must, consequently, become followers and not leaders. It is known that the public we are dealing with today is not the public with which we had to deal twenty-five years ago. The public today is better educated. They read more; they think more, and they do not take so many things for granted. When a man or woman in your community elects to go to St. Louis, Chicago or Rochester for advice or treatment that may be available within the confines of the State of Arkansas, there is something wrong. This is not altogether the fault of the public. The medical profession is not keeping the public in close enough touch with what is being done in the way of real progress and real efficiency in our work. We know that in the State of Arkansas just as good work is being done in the various lines of medicine and surgery, as is being done in any other State. Where we have fallen short is that we have not used all the legitimate means of bringing these facts to the attention of the public. We must have closer co-operation, and we must have a better understanding among the members of the profession in the State, if we are to inspire the confidence and get the support of the public which we so much desire.

In behalf of the profession of Little Rock, we extend to you a hearty welcome. We hope that your stay here will not only be pleasant but profitable. I thank you. (Applause.)

RESPONSE TO THE ADDRESS OF WELCOME ON BEHALF OF THE DELEGATES OF THE ARKANSAS MEDICAL SOCIETY

Dr. J. G. Eberle:

Mr. President, Ladies and Gentlemen:

We appreciate most heartily the welcome extended to us by Dr. Darnall. It has often been said that Little Rock is the home of the Arkansas Medical Society; and that it is always pleasant to receive a

warm welcome home. Little Rock, with its lovely women, its beautiful flowers, its manly men and its high-class physicians, always has an attraction for the medical men of Arkansas. We may wander away now and then to other points in the State, but the magnet always draws us back home.

The program states that this is the forty-seventh annual session of the Arkansas Medical Society. Time is slipping by and we are approaching our fiftieth anniversary, or, we might say, "golden wedding." The men of the earlier times of this society, men with bright and youthful faces, fired with ambition and noble anticipations, have grown old and gray, and many have passed away. Other men, with bright and youthful faces, fired with the same ambition and anticipations, have taken up the burden and will "carry on."

Much has been accomplished by this society during its existence, much more yet remains to be brought to pass. With the burden on the shoulders of the young men who are now carrying it so nobly and efficiently time will accomplish much more in the future.

Again, I want to say that we appreciate the invitation and the words of welcome we have heard. (Applause.)

The Chair appointed the following Credentials Committee: Dr. F. Vinsonhaler, Dr. E. F. Ellis and Dr. Thos. Douglass.

The House of Delegates took a recess for five minutes pending the report of this committee:

Dr. Vinsonhaler:

Mr. President and Gentlemen:

Your Committee on Credentials wish to report that we have examined the list of delegates in the hands of the Secretary, and find that the members so designated are entitled to represent their respective county societies at this meeting.

On motion the report was adopted.

The roll was here called and a quorum was found to be present.

The next in order is the reading of the minutes of the last annual meeting and adoption thereof.

Dr. Lemons: I move that we adopt the minutes of our last meeting as published in the Journal.

Dr. Bradley (Morrilton): I second the motion.

Carried.

President Cargile: I will appoint as the Reference Committee Dr. Robert Caldwell, Dr. R. C. Dorr and Dr. J. D. Southard. The next on the program is the President's address. I will ask you to pass over the President's address to the House of Delegates. I knew I was to make an address before the general session, and as I haven't been well lately, having been recuperating a month, I haven't prepared any address to read to the House of Delegates. I think that is rather superfluous anyway; especially now when the House of

Delegates meets on the same day as the general session. It was very well, under the former law, when the House of Delegates met the day before the general session. I hope that you will excuse me for not complying with that law; as I don't want to inflict too much on you while I am here. I think it will be a relief to you.

The next is the report of the Committee on Scientific Program.

Mr. President and Members of the House of Delegates.

GENTLEMEN—Your Committee on Scientific Program wish to submit the printed program as our report, a copy of which is being delivered to each member as he registers.

Every effort has been made to have the program as complete as it is possible to make one covering so many subjects.

Every member is requested to submit to the Secretary suggestions that will tend to make the program for next year better in every way than the one of 1922.

Respectfully submitted,
ST. CLOUD COOPER, *Chairman*,
M. D. OGDEN,
WM. R. BATHURST.

On motion the report was adopted and the committee discharged.

President Cargile: The next is the report of the Committee on Scientific Exhibit, Dr. D. A. Rhinehart, Chairman.

REPORT OF THE COMMITTEE ON SCIENTIFIC EXHIBIT.

The Scientific Exhibit speaks more for the work done by the Committee on Scientific Exhibit than any report the committee could make. In it will be found material illustrating a wide variety of subjects; something of interest to every member of the society.

Not as many exhibits illustrating papers read in the scientific sessions of the society were submitted as the committee wished to obtain. In the future it is hoped that a large part of the exhibit will be composed of such material.

The work of the committee has been somewhat handicapped by a lack of funds to pay necessary expenses such as printing, postage, etc. If it is the opinion of the House of Delegates and the Council that the exhibit is worth it, it would be desirable in the future to have an annual appropriation to defray such expenses.

The committee wishes to recommend that every member of the House of Delegates visit the exhibit early in the session and assist in advertising it to the members of the society.

Because not quite all of the exhibits have been received the committee asks permission to incorporate in this report for publication in the proceedings of the House of Delegates a completed list of the exhibits presented.

The following exhibits were included:

1. Public Health exhibit from the Arkansas State Board of Health and the Arkansas Anti-Tuberculosis Association.

2. An exhibit of charms, amulets, etc., used in the practice of medicine and divided into three sections: (1) General medicine; (2) Pediatrics; (3) Endocrinology; by Dr. Henry Thibault, of Scott, Ark.

3. An exhibit of pathological specimens from the pathological laboratory of St. Vincent's Infirmary, Little Rock.

4. An exhibit of pathological specimens from the Department of Pathology, University of Arkansas School of Medicine.

5. An exhibit of cross sections and dissected specimens used in teaching gross anatomy, with student's drawings, etc., from the Department of Anatomy, University of Arkansas School of Medicine.

6. An exhibit of literature, pictures, etc., from the Arkansas Committee on Cancer Control, Dr. Dewell Gann, Jr., Chairman, Little Rock.

7. An exhibit of roentgenograms illustrating paper by Dr. Anderson Watkins, Little Rock, on "Surgery in the Treatment of Fractures."

8. An exhibit of roentgenograms illustrating paper on "Peptic Ulcer," by Dr. J. H. Phipps, Roe, Ark.

9. An exhibit of a roentgenogram of an abdominal pregnancy at term by Dr. C. V. Scott, Little Rock.

10. An exhibit of prints from unusual roentgenograms from the x-ray laboratory of Drs. Watkins, Shipp, Bond and Rhinehart, Little Rock.

11. An exhibit of forty posters on patent medicines, fake cures, etc., from the Propaganda Department of the American Medical Association.

12. An exhibit of kinographic tracings illustrating the action of drugs on the circulation by Dr. E. M. Pemberton, Department of Physiology, University of Arkansas School of Medicine.

D. A. RHINEHART, *Chairman*,
CHAS. E. OATES,
W. V. LAWS,
J. D. SOUTHARD,
Committee

Dr. Rhinehart: I wish to say that the exhibit will be found across the hall. We will have it ready this afternoon. This is the first exhibit of its kind, and on the support given this exhibit at this time by this meeting will depend the exhibit in the future. (Applause.)

President Cargile: If there is no objection, we will pass that as accepted.

Secretary Bathurst: It occurs to me, as this is one of the standing committees, that the report should be referred to the Reference Committee.

President Cargile: That is understood, that the Reference Committee is to receive all the reports unless otherwise provided for. The next will be the report of the Committee on Medical Legislation, Dr. Robert Caldwell, Chairman.

Dr. Caldwell: I have no written report. As there has been no legislation enacted in the last year, the committee hasn't had a meeting and, consequently, we as a committee, have no report. I would like to say a few words in regard to medical legislation. I have been very much interested during the past winter in reports that I have gotten from the

Legislative Committee of the New York Medical Society. It seems that they have a legislative committee there that keeps in touch and is notified of every bill that is introduced either in the House or the Senate that has anything to do with public health or medical legislation. And this committee every week gets out a bulletin and this bulletin is sent to the legislative committee of each county society in the State of New York, and their cooperation and support is asked in all these legislative matters. So it might not be a bad idea for us to bear that in mind, so that when our Legislature meets the next time, we could keep informed as to what is going on, and every week or every two weeks or at stated intervals, send either to the Legislative Committees of the county societies or to the Secretaries of the county societies, in a brief statement, exactly what is going on at the Statehouse, so that you men and everybody would be better informed as to what course to pursue to help do what we might for the betterment of the health of the people of Arkansas and also as to legislative matters. I mention this because it seems to me to be a very good thing to do. (Applause.)

President Cargile: The next is the report of the Committee on Necrology, Dr. F. Vinsonhaler, Chairman.

Dr. Vinsonhaler: Arrangements have been made for the report of the Committee on Necrology tomorrow morning at the Crescent Theatre at 9:00 o'clock. Our program will be held there, and we will ask all members who can come to come and be there promptly at 9:00 o'clock, because the exercises are to be followed by three scientific papers. That constitutes the report.

President Cargile: The next is the report of the Committee on Workmen's Compensation and Social Insurance, Dr. J. M. Lemons, Chairman.

Dr. Lemons: I want to say that I have in my feeble way been trying to get a report from those doctors who were on this committee with me. I wrote every one of them to give me their opinions, and I only got one man's report. So I am going to ask you for a little bit more time, and maybe I can get this committee together this afternoon and make a report in the morning. If you will accept that, we will appreciate it very much, and I will see if I can't get the men together. We will give you a report anyway before we go very far into the meeting, but we would appreciate that very much if you would extend us that time.

President Cargile: The next is the report of the Committee on Hospitals, Dr. C. S. Pettus, Chairman.

Dr. Pettus: I have met all of this committee and talked it over with them, except Dr. J. J. Smith, of Paris. We have all gone into the matter together, and I will submit the report just the same.

REPORT OF THE COMMITTEE ON HOSPITALS.

We, the Committee on Hospitals, wish to report to the Arkansas Medical Society that our investigation of hospitals in Arkansas indicates a promising future for hospitals of this State. While but few hospitals have been erected during the past year, those already established are slowly developing toward standardization.

Among the hospitals visited by the chairman was the Warner Brown Hospital of El Dorado. This is a beautiful and well arranged hospital; but it was found that few efforts had been made toward standardization. No histories were taken; practically no records of any kind; no laboratory; and there was no staff organization; the entire working of the hospital was directed by a board consisting of physicians and laymen. At a meeting with the doctors interested in this hospital standardization was discussed. The doctors present entered into the discussion with interest and enthusiasm, and since this meeting they have organized a staff that promises to meet the requirements of the various hospital organizations that are interested in the standardizing of hospitals.

The Davis Hospital at Pine Bluff was also visited. Its staff is organized but is not functioning to the interest of standardizing as it might. The records are badly kept, the laboratory is not used as it should be, and there is no x-ray equipment. This hospital having back of it the proficient physicians of the profession of that city, holds promise of much, unless longer retarded by indifference and procrastination on the part of the profession. We are watching it with interest and hope that the efforts toward standardization will not cease with this committee until it is attained.

Fayetteville City Hospital is building an annex adding 50 beds to present hospital capacity. This institution promises much to the northwest part of Arkansas. It will add an x-ray laboratory which completes its equipment for standardization. This hospital is a credit to the State and is functioning as perfectly as might be expected.

The Baptist Hospital of Little Rock is building its three hundred bed hospital with nine operating rooms to replace the present temporary quarters. Upon its completion we should have a hospital as well equipped as can be found anywhere. It should be a valuable asset to science and the profession.

We wish again to emphasize the recommendations of former hospital reports that only standardized hospital training schools for nurses be recognized by the examining board, and that those nurses coming before the board from a hospital not recognized by the College of Surgeons, A. M. A., or the Catholic organization regulating standardizing of hospitals be refused examination for license.

The profession should in every way assist this board that is tirelessly working in this direction.

C. S. PETTUS, *Chairman*,
E. F. ELLIS,
R. C. DORR,
JOHN STEWART,
J. J. SMITH,
J. I. SCARBOROUGH.

President Cargile: The next is the report of the Committee on Arrangements and Entertainment, Dr. F. Vinsonhaler, Chairman.

Dr. Vinsonhaler: Your attention is called to the entertainments provided for and printed in the program here. For fear that you may not have noticed them, I will read this to you. (Reads.)

President Cargile: The next is the report of the Council, Dr. Robert Caldwell, Chairman.

Dr. Caldwell: The Council hasn't very much to report yet. We will make a report later on. During the meeting of the Southern Medical Association at Hot Springs, the Council decided to hire an attorney for the Arkansas Medical Society. We came back to Little Rock, and Mr. H. T. Harrison, of the firm of Pugh, Buzbee & Harrison, was retained as attorney for the Arkansas Medical Society. I wish to call attention to the fact that Mr. Buzbee of that firm was for years the reporter for the Arkansas Medical Society and is very familiar with medical terms and medical doings. I also call your attention to the fact that Mr. Pugh and Mr. Buzbee have been identified in a good many medico-legal cases, and this is a very representative firm. Mr. Harrison is a young man, full of vim and energy and very bright, and we feel satisfied with our selection.

President Cargile: The next is the report of the Secretary, Dr. W. R. Bathurst.

REPORT OF THE SECRETARY.

To the House of Delegate of the Arkansas Medical Society:

GENTLEMEN—It is indeed gratifying to me to be able to make the announcement that the Arkansas Medical Society is now composed of sixty-five component societies.

Cleburne, Cross and Montgomery Counties have been added to the list, after having lain dormant for many years.

At present the following counties show very little interest in medical organization: Sharp, Stone, Van Buren, Izard, Fulton, Marion, Pike, Newton and Poinsett.

At the close of the year 1921 our membership numbered 1,140. This year to date 1,035 membership has been paid.

Our financial condition to date of this report is as follows:

Cash on hand at the close of last annual session	\$ 8,170.96
Received for annual dues.....	\$3,372.00
Received for interest (Treasurer's and Secretary's accts.).....	120.74
Received for Advertising in Journal	3,061.61—\$ 6,554.35
Total	\$ 14,725.31
Current expenses as per itemized attached statement	7,068.64
Balance on hand at date of this report, May 17, 1922.....	\$ 7,656.67

The Secretary is indebted to the officers of the county societies for their efforts in keeping the various local organizations alive; and I want to especially congratulate and express my appreciation to the Program Committee and the Committee on Arrangements for their splendid work in making this gathering pleasant and profitable.

President Cargile: The next is the report of the Treasurer, Dr. R. L. Saxon.

ANNUAL REPORT OF THE TREASURER OF THE ARKANSAS MEDICAL SOCIETY FOR THE FISCAL YEAR ENDING MAY 17, 1922.

Cash on hand from last year.....	\$8,170.96
Interest received on Savings Account.....	112.75—\$ 8,283.71
Vouchers cancelled, Nos. 81 to 116 inclusive.....	7,068.64
Balance on hand.....	\$ 1,215.07
Respectfully submitted, R. L. SAXON, Treasurer.	

President Cargile: Without any opposition, this report will be referred to the Council. The reading of communications is next in order.

Secretary Bathurst: I have a letter from Dr. Sidney K. Simon, of New Orleans, and a telegram from Dr. C. C. Stephenson of Los Angeles, who are on the program. Both unable to be here. Also a telegram of congratulations from Southern Medical Society.

Birmingham, Ala., May 18, 1922.

Arkansas State Medical Society, in Convention Assembled, Little Rock, Ark.

Greetings, and best wishes for most successful meeting.

SOUTHERN MEDICAL ASSOCIATION.

Los Angeles, Calif., May 16, 1922.

Dr. Wm. R. Bathurst, Secretary:

Kindly convey to the officers and members of the Arkansas Medical Society my sincere regrets on account of my inability to be present with you at this meeting. I have looked forward with genuine pleasure to the approaching dates of this session, anticipating the delightful joys that were to be mine, but at the last minute circumstances over which I had no control precluded the possibility of leaving. State Medical Association of California sends you kindly

greetings and wishes for you a most enjoyable and profitable meeting.

Cordially,

C. C. STEPHENSON, *Fraternal Delegate.*

President Cargile: The next is the reading of memorials and communications. If there are none, the next order of business will be the selection of the Nominating Committee.

Secretary Bathurst: Before that committee is selected, we have a guest or two in the house. I move that the privileges of the floor be given Dr. Frank B. Young.

Carried.

Dr. Young: All that I need to say is that I am glad to be here. I don't need to say that, because I know that you all know that I am glad to be here and mix with my old friends once more. I hardly feel like a stranger. I see so many faces here that I know, and I see some of the faces in my mind that are not here in person, and, having been away some six years, that part makes my homecoming sad. To see all of you men here whom I know so well and with whom I have lived so long makes me glad. I thank you. (Applause.)

(A recess was taken to select the Nominating Committee.)

The following were chosen as the Nominating Committee:

PERSONNEL OF NOMINATING COMMITTEE.

First Councilor District—Dr. J. C. Hughes, of Hoxie.

Second Councilor District—Dr. J. L. Jones, of Searcy.

Third Councilor District—Dr. W. H. Moorhead, of Stuttgart.

Fourth Councilor District—Dr. C. C. Price, of Dumas.

Fifth Councilor District—Dr. J. A. Moore, of El Dorado.

Sixth Councilor District—Dr. M. L. Norwood, of Lockesburg.

Seventh Councilor District—Dr. E. A. Purdum, of Hot Springs.

Eighth Councilor District—Dr. G. L. Henderson, of Conway.

Ninth Councilor District—Dr. J. H. Fowler, of Harrison.

Tenth Councilor District—Dr. E. F. Ellis, of Fayetteville.

President Cargile: The next is the report of the delegates to the American Medical Association, by Dr. G. S. Brown.

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

The House of Delegates of the American Medical Association met in the Boston Medical Library Building, Boston, 10:00 a. m., June 6, 1921. Practically the whole membership was in attendance.

The late Speaker Murray's address referred particularly to the need of a "Public Health Journal, one that would be an authoritative means of communication, a connecting link between the medical profession and the laity and Field Secretaries." He recommended the American Medical Association to employ one or more field secretaries who might be of great assistance in building up our association by putting all medical men in closer touch with it and letting different branches know more of the important details of the working of our efficient home office in Chicago.

Addresses followed by President William C. Braisted, and President-elect Hubert Work.

According to the Secretary's report the membership of the American Medical Association May 1, 1921, was 84,971. He called attention to one danger which merits the consideration of the entire medical profession. This is the tendency on the part of certain physicians, and a few component county societies, to be dominated by commercial ideals rather than by the standards which the American Medical Association has adopted in formulating its Principles of Medical Ethics.

The report of the Board of Trustees, referred to the Journal of the American Medical Association, its advertising and subscription departments, the Spanish edition, special Journals, Co-operative Medical Advertising Bureau, the Building, Propaganda Department, Council on Pharmacy and Chemistry. Their report shows a most satisfactory state of affairs.

The Council on Health and Public Instruction was authorized to appoint special committees to investigate the subject of vaccination and vivisection, and prepare material for the proper education of the public on those subjects. Another committee was authorized for the study of the entire question of seats in medicine, and the proper attitude which the American Medical Association should adopt toward them. It was pointed out that a certain portion of the public is attracted by new and fantastic ideas, and that any person with evangelistic talents and either warped mental equipment or strong personal ambition to succeed financially and pseudo-professionally, can build up, without a great deal of trouble, a new cult. Movements of this kind flourish on opposition; but only for a little while, eventually dropping into a rut and sloughing off their more foolish claims.

The report of the Committee on Narcotic Drugs received considerable attention. Among the many recommendations made by this committee we wish to report the following: "That the several State and county medical societies constituent to the American Medical Association, be urged to obtain on their own initiative and through their own officers, such information as may be necessary to bring about the effective prosecution by local, State and Federal authorities of that small number of the members of the medical profession, who are now acting in violation of the Federal or State narcotic laws."

In the report of the Council on Medical Education and Hospitals, a broader view of the situation shows that instead of being complete, their task has only begun. The work of the Council on Medical Education and Hospitals has grown to include a study of the problems of preliminary education; the undergraduate medical curriculum; the hospital in relation to clinical teaching and the intern year; graduate medical education and provision for the training of specialists; the development of so-called group prac-

tice and the extent to which medical practice is done in hospitals; all for the purpose of providing for the public the best possible facilities offered by modern scientific medicine for the diagnosis, cure and prevention of disease.

Considerable discussion took place in the House of Delegates pertaining to "Organized Medicine Preferable to State Medicine." State medicine was defined as the practice of medicine by the State by physicians on a salary to the exclusion of all other and individual practice of medicine. Following several resolutions the following was unanimously carried: "The House of Delegates of the American Medical Association approves and endorses all proper activities and policies of State and Federal Governments directed to the prevention of disease and the preservation of the public health."

The election of officers resulted as follows: President-elect, Dr. George E. Schweinitz; Vice President, Dr. Frank B. Wynn, Indiana; Secretary, Dr. Alexander R. Craig (re-elected); Treasurer, Dr. Wm. Allen Pusey, Illinois (re-elected); Speaker of the House of Delegates, Dr. Dwight H. Murray, New York (re-elected); Vice Speaker, Dr. Frederick C. Warnshuis, Michigan (re-elected); Trustees, Drs. Frank Billings, Illinois; Wendell C. Phillips, New York, and Thomas McDavitt, Minnesota; all re-elected.

The Association will meet in St. Louis, May 22-26, 1922.

Respectfully submitted.

GEORGE S. BROWN,
WM. R. BATHURST.

President Cargile: This report, because of its general interest, should be discussed. It is now open for discussion.

Secretary Bathurst: It was my suggestion that this be discussed. If there is anything that came before the A. M. A. that you would like to know and that we might be able to answer, we would be very glad to do so. We made this report as brief as possible.

On motion, the House of Delegates adjourned until the next day, Thursday, May 18, 1922, at 8:30 o'clock, a. m.

HOUSE OF DELEGATES.

SECOND DAY.

At meeting of House of Delegates in War Memorial Building, called to order 9:00 a. m., May 18, a quorum was not present. Adjourned.

HOUSE OF DELEGATES.

THIRD DAY.

Friday, May 19, 1922.

The House of Delegates was called to order by the President, Dr. Cargile, at 1:30 o'clock p. m.

On roll call of delegates a quorum was found present.

President Cargile: We will now have the report of the Nominating Committee.

REPORT OF NOMINATING COMMITTEE.

FOR PRESIDENT.

Thad Cothorn, Jonesboro.
Robt. Caldwell, Little Rock.
R. H. T. Mann, Texarkana.

VICE-PRESIDENT.

1. E. A. Purdum, Hot Springs.
2. J. D. Southard, Fort Smith.
3. L. T. Evans, Mt. Pleasant.

COUNCILORS.

Second District—J. L. Jones, Searcy.
Fourth District—A. Isom, Dumas.
Sixth District—Wm. Gibson, Nashville.
Eighth District—G. L. Henderson, Conway.
Tenth District—E. F. Ellis, Fayetteville.

DELEGATE A. M. A.

Geo. S. Brown, Conway.

SECRETARY.

Wm. R. Bathurst, Little Rock.

TREASURER.

R. L. Saxon, Little Rock.

President Cargile: We will now proceed to ballot for President. I will appoint Dr. Barlow and Dr. Norwood as tellers.

Thereupon, the House of Delegates proceeded to ballot upon the three names selected by the Nominating Committee, Dr. R. H. T. Mann, Dr. Robert Caldwell and Dr. Thad Cothorn.

After two ballots had been taken without a choice being made, on motion of Dr. Norwood, Dr. Cothorn's name was dropped, he having received the lowest number of ballots.

Upon a third ballot, Dr. Caldwell received a majority of all the votes cast.

Dr. Cothorn: As one of the defeated candidates, I move that the election of Dr. Caldwell be made unanimous.

Seconded by Dr. Mann. Carried.

Thereupon, Dr. Caldwell's election was declared unanimous.

Dr. Vinsonhaler: I move that the remaining candidates be elected by acclamation and that the secretary be instructed to cast the vote.

Seconded. Carried.

President Cargile: I will appoint Dr. Cothorn and Dr. Mann to conduct Dr. Caldwell to the rostrum.

For years we have been following the custom of filling vacancies in the House of Delegates, but it is against the law which requires that they be filled by the Council. That law has not worked well because the Council is

not always in session. Sometimes it is hard to get a quorum of the regularly accredited delegates, and it is not feasible to wait for the Council to meet and fill those vacancies. So, the law does not work well. I want to ask that something be done. The secretary is more familiar with the way of doing those things, and I want to suggest to you that some motion be made or some steps be taken to correct that and make it legal to do as we have been doing it; that is, to allow the House of Delegates to fill those vacancies.

Dr. Bathurst: We hope to have a Committee on Constitution and By-Laws, and the incoming President might put that task on that committee to report at the next meeting.

Dr. Caldwell was here escorted to the chair.

Dr. Cargile: I am very glad to present to you my most worthy successor, Dr. Caldwell.

President Caldwell: Gentlemen. I haven't very much to say. I wish to thank you very much, I assure you. I will tell all of you that the time will come when we are going to expect some help from you. The President can do just so much, and we are going to expect you men to help us to do a great deal of work the ensuing year.

President Caldwell: We will hear the report of the Committee on Health and Public Instruction, by Dr. Thos. Douglass.

REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION.

To the President and Honorable Members of the House of Delegates:

We, your Committee on Health and Public Instruction wish to report that our work this year consisted of the distribution of 100,000 leaflets, containing questions and answers pertaining to malaria and typhoid fever, to be pasted by the public school teachers in the fly leaves of text books used by the pupils under their care. Very beneficial results are expected from this tactful missionary work. For your convenient reference, we attach copy of each leaflet hereto.

From the allowance of \$300.00 voted for this work at the last meeting of the House of Delegates, we have found it necessary to expend \$219.20.

We would further recommend that this good work be continued in the years to come.

Respectfully submitted,

LEONIDAS KIRBY, *Chairman*,
THOMAS DOUGLASS,
H. A. ROSS,
CHAS. H. CARGILE,
WM. R. BATHURST,

Committee.

Dr. Bathurst: Just as a matter of information, at the last meeting the Committee on Health and Public Instruction were allowed \$300.00 for their expenses. They present a bill of \$219.20. I think probably that this

work should be continued, and a motion for that amount of money to be allowed would be in order. This committee has been sending out leaflets pertaining to the cause and prevention of malaria and typhoid fever. One hundred thousand leaflets were distributed to the school children and pasted on the back of the school books, and, if this work is to be continued, there will have to be some authority given by the House of Delegates.

Dr. McKnight: I move that the same amount as last year be appropriated for this purpose.

Seconded. Carried.

President Caldwell: The next report is that of the Committee on Cancer Research, Dr. E. R. Barlow, chairman.

REPORT OF COMMITTEE ON CANCER RESEARCH.

Your committee feels that the most important factor in the prevention of cancer is arousing the interest of both the profession and laity.

The campaign which has been conducted by the American Society for the Control of Cancer during the past few years is already bearing fruit. As a result of that campaign, the public generally have a greater and more accurate knowledge of this disease. Yet, we find that delay on the part of both physician and laity is still the greatest stumbling-block in handling the cancer problem. The time factor is all-important. Delay either on the part of the patient or physician usually marks the difference between success and failure. While "watchful waiting" may be human and entirely proper in certain political and national problems, it has no place in the treatment of cancer.

The laboratory has given us nothing new relative to the actual cause of cancer during the past year. We believe the American Society for the Control of Cancer is doing a good work, and, if it can secure the co-operation of all State and County Medical Societies in America to assist in carrying a universal campaign of education direct to the public, we believe as much can be done to prevent cancer as has been done by like methods to prevent the spread of tuberculosis and many other diseases.

We are all agreed that cancer can be cured if completely removed by the knife before it has extended through the lymphatic channels or the blood stream. No other means of curing deep-seated cancer has been effected by science. Radium and x-ray hold out hope because of their effect on local, superficial cancer, and because they stave off the progress of the disease in inoperable cancer and afford relief of the symptoms in these cases; but they are still on trial and have not demonstrated their value as permanent cures. Internal medicine, ointments, pastes and superficial cauteries cause criminal delay and have no value as permanent remedies.

We believe the physician has a grave responsibility in the fight against cancer. The family doctor is the first to examine the patient and much depends upon his diagnosis and advice. It is a well known fact that a considerable proportion of malignant tumors are not recognized by the doctor when the patient presents the indefinite, early symptoms of the disease. Optimism too often replaces a careful physical examination. The great majority of cancers of the

rectum are today treated as hemorrhoids for from one to twelve months. Uterine discharges are often not properly investigated, and curetings are not examined. Cancer of the tongue and mouth is permitted to advance because there is a positive Wassermann. Metastases are produced by repeated rough examinations. Malignant moles and epitheliomas of the skin are improperly removed.

Clearly inoperable cases are operated on, thus bringing surgery into disrepute. These conditions call for a far keener appreciation of responsibility for the mortality from cancer than now generally exists among the profession.

After reviewing the statistical reports of the country, we are led to believe that there still occur annually in the United States from ninety to one hundred thousand deaths from cancer, and that the death rate from malignant disease is increasing at the rate of two and one-half per cent a year.

The following points should be remembered and impressed upon all patients who seek advice:

1. Cancer is not a blood disease, but always starts as a local growth; hence, it can always be cured by removal if discovered and treated early.

2. Cancer in the beginning may cause no pain or other noticeable symptoms of ill health.

3. Cancer is probably not hereditary.

4. Cancer is not contagious.

To briefly summarize, the present situation in regard to cancer is appalling. To improve it, we must carry on a campaign of education.

The public must learn that operation in the early stages can and does cure the disease and that delay is fatal. They must be taught the early and suspicious symptoms of this disease. The physician must strive to recognize the disease in its early stages and the surgeons and laboratory workers must continue the search for curative measures more effective than those we already have. By vigorous prosecution of these measures we may confidently hope to secure a control of cancer which we certainly do not hold today.

Respectfully submitted,

E. E. BARLOW, *Chairman*,

W. H. DEADERICK,

DEWELL GANN, JR.,

W. H. LAWS,

A. E. CHACE,

Committee.

President Caldwell: This report should have been referred to the Reference Committee. It is rather late now. If there is no objection, the report will be received and will appear in the minutes of the meeting. If any one has anything to say about the report or any objections to offer, we will hear from them now. The next report is that of the Committee on Infant Welfare.

Dr. Niehuss: Dr. Warren, the chairman of this committee, had to leave last night, and he asked me to read that report.

THE REPORT OF COMMITTEE ON INFANT WELFARE.

There are very important legislative enactments that we wish to urge together with other actions that are important to the coming generation.

We should like to have a law making an illegitimate child, whom the father acknowledges as his, an heir to his property, and taking his name. We think

it important that Arkansas be accepted as one of the State entitled to the appropriation by the U. S. Government for vital statistics, and to do this every doctor in the State must report his births and deaths. Today we stand excluded from the benefit if we do not make a creditable showing by June 30.

We heartily recommend any measure or measures that will promote the welfare of infants, and are willing at all times to co-operate with any organization for this purpose.

G. A. WARREN, *Chairman*,

A. C. KIRBY,

W. T. WOOTTON,

H. H. NIEHUSS,

Committee.

President Caldwell: If there is no objection, that report will be accepted and will appear in the minutes. The next report is that of the Committee on Workmen's Compensation and Social Insurance.

REPORT OF COMMITTEE ON WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

Dr. Lemons: After I was made chairman of this committee I sent out a letter of inquiry to those doctors that were put on this committee with me. I failed to get a report. Only one man responded. So yesterday I had a meeting of those of the committee that I could get together. I did not write out a report, but I will give you the consensus of our meeting.

I will say, at the start, that this committee does not recommend social insurance; not by any means. If you gentlemen have read any of the literature that has been published in regard to social insurance in England, France or Germany, you will readily see that social insurance is not what we want in America.

On the other hand, if you will take up the workmen's compensation act and read some of the laws of our sister States in regard to this workmen's compensation act, you will see that it is a great benefit to the workmen, the man that works and makes his living by the day, simply from the fact that, by having this law enacted by our State, it gives this workman the amount that the law sets forth that he should have for any accident, whatever that might be. If he loses a finger, if he loses a hand, an arm, a leg or a foot, that man knows just exactly what he is going to get when he gets injured. If he loses his life, his family knows what they are going to get. Under the present law in our State, as you know, when a man gets hurt, some lawyer, that the legal profession terms a shyster, will soon see him and he will tell this man that he can get a great deal more by bringing suit than if he were to settle. If Dr. Barlow had a man working for him, then Dr. Barlow would be willing to pay him for his accident. When a lawyer is retained, he gets this man under a contract where, if he settles before the case goes to court, the attorney gets one-third or one-half. I know of one instance wherein the attorney, every time he goes to court, adds ten per cent more to his charge. I know of one case, of my own knowledge, where, if it is settled now, the poor laboring man would only get fifty per cent of whatever he got, and he was offered a great deal more than that to settle. So this is what I understand to be the workmen's compensation act. Louisiana has a mighty good law in regard to that; Oklahoma has a good law, and also Pennsylvania and a number of other States. I think

there are thirty-two States in the Union today that have a workmen's compensation act. We shall appreciate it very much if our Legislative Committee will see what they can do for the benefit of the workmen in Arkansas. (Applause.)

President Caldwell: That report will take the same course, that is, accepted and to appear in the minutes as published in the Journal. The next report is that of the Council.

MEETING OF THE COUNCIL.

FIRST DAY.

Wednesday, May 17, 1922.

The Council met at luncheon in the Hotel Marion, 12:15 p. m. Called to order by President Caldwell. Present: Cothorn, Jones, McKnight, Lemons, Stidham, Stewart, Wootton, Caldwell and Bathurst.

Dr. W. F. Smith, Chairman State Medical Board, who was a guest, mentioned the work his board was doing in prosecuting violators of the Medical Practice Act, and said the work would be greatly facilitated if financial assistance could be secured. On motion of Dr. Wootton, duly seconded, the Council authorized an appropriation of not exceeding two hundred and fifty dollars (\$250.00) for the current year.

Councilor Cothorn of First District, reported satisfactory progress. All counties organized except Poinsett, which lapsed in 1918. On account of its geographical situation and bad roads it was difficult to maintain a local society; but a new rock road is being constructed which will facilitate communication and affiliation. There was still some professional jealousy among certain physicians; but this is being gradually eliminated through co-operation, get-together social features, and it is believed that a reasonable degree of harmony will prevail in the future.

Dr. Jones, of Second District, stated that he had not been able to do much traveling on account of bad roads. Cleburne County had been recently reorganized and was progressing nicely. Conditions fairly satisfactory.

Dr. McKnight, Third District, reported excellent progress. Cross County had been reorganized. Had visited a number of counties and found conditions very satisfactory. Meetings had been enlivened by luncheons, fish fries, and other enjoyable social features.

Dr. Lemons, Fourth District, reported that he had endeavored by correspondence with county secretaries to obtain data in regard to eligible and ineligible physicians in each county; but as all the secretaries did not make reply, his data was only approximate.

Dr. Stidham, Sixth District, said his progress had not been as marked as he would desire. Had made an effort to reorganize Pike County, but was unsuccessful as they were not ready for action.

Dr. Wootton, Seventh District, advised that he had taken up the matter of a district society with the various county secretaries and other members; but they did not seem to be favorably inclined. There was some friction in Hot Spring County; but he hoped to get the matter adjusted at the June meeting. Montgomery County was recently reorganized. Lapsed in 1915.

Dr. Caldwell, Eighth District, reported his district in apparent good shape. Had visited Morrilton and Russellville. Pulaski County was making good progress. At a recent meeting held at Hotel Marion, luncheon was served and addresses were made by Governor McRae, Senator Robinson and Bishop Winchester. A good crowd was in attendance.

Dr. Stewart, Tenth District, reported that he had not been able to do much traveling on account of his duties at the sanatorium. He had made an effort to drive charlatans out of his district, and had been successful in one or two instances. There was some friction in Logan County, which he hoped to remedy in due course. On account of the county being divided by Mount Magazine, it was difficult for those on the north side to visit the south side, and vice versa.

The chairman appointed Lemons, Wootton and Cothorn, as the Auditing Committee to examine accounts of secretary and treasurer.

On motion, Secretary Bathurst was authorized and instructed to pay all incidental expenses that might come up, such as fees of stenographers, stationery, postage, etc.

On motion, the meeting adjourned till the following day at same time and place.

SECOND DAY.

The Council met Thursday, May 18, 1922, at Hotel Marion.

Chairman Caldwell called the meeting to order at 12:15 p. m. Present: Cothorn, McKnight, Lemons, Stewart, Stidham, Wootton, Bathurst and Caldwell.

On motion, it was resolved that Secretary Bathurst be allowed and paid the customary honorarium for his services as editor of the Journal, and \$50.00 per month for stenographic services.

On motion, the Council adjourned to Friday afternoon, May 19.

THIRD DAY.

May 17, 1922.

We, your Auditing Committee, beg to report that we have audited the financial statements of the secretary and treasurer and find them as stated in the House of Delegates this morning. There is a balance on hand of \$7,656.57.

We approve the bill for office incidentals of \$149.97. We recommend that the stenographic expense of \$50.00 per month be continued; that the secretary pay the incidental expenses of this Little Rock meeting.

We highly commend the business arrangements in the secretary's office and call especial attention to the amount of over \$3,000.00 which is now being received from the advertisements of the Journal, and which practically pays for its publication.

For this creditable showing we extend our thanks to the secretary-editor.

THAD COTHERN,
J. M. LEMONS,
W. T. WOOTTON,
Committee.

FINAL MEETING OF THE COUNCIL.

Held in the War Memorial Building, 4:00 p. m., Friday, May 19, 1922.

Called to order by President Caldwell.

Present: Caldwell, Henderson, Wootton, Ellis, Cothorn, McKnight and Bathurst.

The following officers were elected: Thad Cothorn, Jonesboro, chairman; W. T. Wootton, Hot Springs, secretary; Wm. R. Bathurst, Little Rock, editor.

On motion, duly seconded, a sum not exceeding three hundred dollars was allowed the Committee on Health and Public Instruction.

No further business appearing, the meeting, on motion, duly seconded, adjourned.

THAD COTHERN, *Chairman.*

Attest: W. T. WOOTTON, *Secretary.*

Dr. Hunt: I move that the report be received. Seconded. Carried.

Dr. Norwood: I desire to offer the following resolution:

RESOLUTION.

Be It Resolved by the Arkansas Medical Society in convention assembled, that we do most earnestly and emphatically condemn and deprecate the practice of some journals (and we grieve to say, also the custom of some religious newspapers of our State), in accepting for publication advertisements exploiting the efficacy of well known quack remedies, which are not allowed in the columns of many first class magazines.

It is the sense of this society that the religious newspapers should not allow such matter to be placed before its readers, as the allegations set forth are flagrantly exaggerated. It seems to us that the editors of the religious press, should be the first to enlighten and warn their constituents as to the credibility of the wonderful cures so readily and easily effected. In this connection we would call especial attention to the columns of one or more church papers, which carry these quack advertisements;

Be It Further Resolved, that the secretary furnish a copy of this resolution to the church papers of this State.

Dr. Caldwell: Does the House of Delegates want to take any action on that resolution?

Dr. Norwood: I move its adoption.

Seconded. Carried.

Dr. Hunt: I move that the Secretary of the Arkansas Medical Society write a very kind letter of thanks to the Secretary of the Nebraska Medical Society thanking them for their courtesy in lending us Frank Young for the week. (Laughter.)

Seconded. Carried.

REPORT OF REFERENCE COMMITTEE.

We, the Reference Committee, beg to approve all reports turned over to us, except the report of the Committee on Hospitals.

We beg to disagree with that committee that all nurses before coming before the examining board shall be graduates of a standardized hospital, as recognized by the College of Surgeons of the American Medical Association, or Catholic organization; as to do so would prove a hardship on some of the smaller hospitals and the nursing work of the State, since there are but three or four so-called standardized hospitals in the State at this time.

ROBERT CALDWELL, *Chairman*,
J. D. SOUTHARD,
R. C. DORR.

On motion, the House of Delegates adjourned *sine die*.

GENERAL SESSION.

FIRST DAY.

The General Session was called to order at 2:00 o'clock p. m., Wednesday, May 17, 1922, by Dr. Cargile, President.

Invocation by Rev. J. G. Benson of New York Conference M. E. Church.

Graecious God, our Father who art in Heaven, reverently we come into Thy presence acknowledging Thee as worthy of our devotion, and we look unto Thee as the source from whence cometh all our help. We look unto Thee because it is in Thee that we live and move and have our being. And we would acknowledge Thee in our coming and in our going. We pray that Thy especial blessing may rest upon this great society of men that have been called; these men who have chosen that most noble, one of the noblest professions in all that which man can choose. From all over the State here are men who have given themselves and who are making sacrifices, who are sparing nothing that they may be a blessing to the communities in which they live. We pray for Thy special blessing upon the officers of this society and upon every member in every part of this great State. We ask, Father, for Thy special benediction to rest upon them in their noble ministry, and we ask that Thou will give them large success in the practice of their profession. We pray, O Lord, that Thou will be with them here in their deliberations during these days in which they are to be together and be with all who shall take part in the program, and may their deliberations be instructive, may they be helpful, and may such subjects be considered and treated in such a way that these men shall go out with larger vision and be so greatly helped that they may be more successful in their chosen profession. We pray for Thy blessing upon our great State and upon the Governor and upon all the officers of our State, and upon ourselves as a people. We pray that we may seek to so improve in every possible way that, whatever position we may occupy, whatever shall be called upon us, we shall be ready to respond and to do everything that we do in the fear of God. Accept of us; guide us in this session, and through all these sessions, and we pray that, in every place and every time, we may honor and glorify our God. We ask these things, not that we may merit them, but we ask them in the name of Jesus Christ, Thy Son, our Redeemer. Amen!

President Cargile: The gentleman who will welcome you to the city needs no introduction. Governor McRae. (Applause.)

ADDRESS OF WELCOME.

Gov. T. C. McRae:

Gentlemen of the Arkansas Medical Society:

I have the distinguished honor to be invited to welcome you here today as the chief executive for the time being. I am glad to have the State association meet here in the Capital City. Your coming here, I am sure, will profit you, and I am sure will be helpful to this city. I am glad to have such organization meet here. I believe in organization. There is no organization in the State more useful and helpful than that of the medical profession. I have been here a long time and I have seen something of the

growth of the medical profession in Arkansas. I can remember when it didn't require any license to practice medicine. I don't know whether it required any qualifications or not, but anybody who wanted to practice could do so. A pill bag, a few pills, ealomel and anything you wanted was sufficient. I have seen the organization and the professional standard elevated to what it is now, and I have seen it grow from a few men to a splendid organization scattered all over the State. It seems to me that it has accomplished more for the relief of suffering humanity than I had ever dreamed of. So, I congratulate you. First, because you are members of such a profession. I have a very high regard for the medical profession, and the people also have. It is a noble profession, one that comes in contact with the people oftener than almost any other, and under circumstances that always draws to you those with whom you come in contact. As I see the influence of the profession grow and extend, my admiration for the profession has grown immeasurably. The cures that are performed now by the physicians and surgeons, as compared with those of half a century ago, seem like the performance of miracles, and yet there is much in the future for you. This great science of medicine and surgery is useful to mankind, and it is going to become more useful. And I am always glad to see you get together, exchange ideas and plan together for the purpose of raising the standard of education. That is what we need all over this country. We need more information, We need more learning. Great as is your profession, none of you can get into it without a reasonable amount of literary and medical training; but the whole country, and particularly Arkansas, is behind. So, when I said to you that I am proud of your achievements as physicians and surgeons, I want to ask you on this occasion, as I do on almost all occasions whenever I have the opportunity, to get behind and get interested in, as I am sure most of you are, the general plan of elevating the general intelligence of the people of our State, and of our nation. The lightnings of this great war revealed a condition of illiteracy that absolutely was a surprise to the world. It was discovered that one out of every six men called to the draft could not read nor write. It struck our people so forcibly that it seems now that everybody is on the way to school trying to learn something. Opportunity schools have been established throughout our State. It revealed another remarkable fact. In the first draft of men between the ages of 21 and 31, it was shown that we had a deficient manhood. What per cent, do you suppose, of those who were called to the draft were rejected because they could not pass the test? Will some doctor tell me?

A Doctor: About 30 per cent.

Gov. McRae: Think of the unfit manhood. Now, that is a part of the work of your profession, to assist in taking care of the health of the youth of our land, directing those in authority along the lines of perfecting and developing the physical man, to cure their defects and keep them along the right road. Now, I say that this war revealed these two conditions, a defective manhood and illiteracy, that was absolutely shocking. Now, it is worth much to you to know these things, and the medical profession is busy and is going to get busy to try and cure these troubles. The teachers and the authorities, city, State and national, who have charge of the health departments and who direct the building of hospitals and the looking after the young, need the leadership of such men as you, and I know they are going to get it. We shall not have a perfect manhood and womanhood in this country unless we educate physically, mentally and spiritually. I want you to take an interest in all these things, and particularly with reference to the

physical aspects. On this occasion I take this opportunity to appeal to you along those lines; not to be satisfied only to cure those who are brought to you with disease and deformity; but to take an interest in these great public questions, in directing those who have control along the lines of thought that will develop childhood into perfect manhood and womanhood, as nearly as is possible, so that we may have a stalwart, able-bodied lot of men and women in our country. But the youth is what we want looked after. They make good citizens, and they produce that which we must have in order to develop our resources. They produce the wealth, if you please; and an able-bodied man is worth something to the community. A decrepit or an invalid is a cost and a charge to the community. So, there is great work for you. God speed you in your work, and in your noble ambition, your noble profession. Go on. As I say, during the past fifty years I have seen your profession grow from practically no organization until it has become the splendid State and national organization that you have now. And there is no people, no profession, that has made such strides and accomplished so much as the medical profession in the last half century. And, I look for the next half century to accomplish a great deal more than the last half has brought to pass. God bless you in your work. You are welcome here, all of you, and we are always glad to have such an organization as this to gather together to our city. I thank you. (Applause.)

President Cargile: Dr. Caldwell will now welcome us on the part of the profession.

ADDRESS OF WELCOME FOR THE PROFESSION.

Dr. Robert Caldwell:

Mr. President and Members of the Arkansas Medical Society:

We would be entirely derelict in our duty if we did not welcome you to our midst. As a member of the Pulaski County Medical Society, I assure you that we want to show all of you while here our very best welcome. We hope that the pain and suffering that your patients undergo while you are gone will be made up by the increased knowledge and information that you will get while here. We hope that the loss to you financially while you are gone will be more than made up by the rest and relaxation that you get while here. One doctor was unkind enough to say that the finances didn't amount to much any more; that there wasn't much money in it. That reminds me of the story of the Jew, who saw two fellows arguing, and approaching them, listened attentively. The question was, "Is there a hell, or is there not a hell?" After they had argued quite a while, the Jew said, "Well, you say there ain't no hell. Where's business gone to, then?" We hope that the medical profession is not quite that bad.

There was a time when you didn't need anybody to entertain you in Little Rock; but those times, as some of you older fellows know, are gone. You don't see any "Green River" up and down Main Street. Old J. E. Pepper has moved away. We haven't any radium water to bathe your heads with, increasing the opsonic index. We haven't any greatly known health resort; but we have a hospitable people. We have just enough of that Southern hospitality, mixed with the foreign element that has moved in, to make it a cosmopolitan community, all working together to show you a good time. Everybody is glad to have you stay as long as you can and visit as many places

as you can, and we hope that you will come back. (Applause.)

President Cargile: Dr. Henry Thibault will address you on behalf of the Arkansas Medical Society.

RESPONSE TO ADDRESSES OF WELCOME.

Dr. Thibault:

Mr. President, Ladies and Gentlemen:

I know that a certain feeling of comfort has come to every one of us after listening to Governor McRae's address. His appeal for elevating the education in general of the people of the State of Arkansas is certainly in harmony with the efforts that the Arkansas Medical Society has made in elevating the standard of medical education in this State. And, I know that it is gratifying that every one of you can feel confident that, in any future efforts, we will have the support of the Governor of Arkansas at least.

In response to the welcome address from the physicians of Little Rock, I feel much like the man that is welcomed home. I used to be here occasionally myself, and I have some very pleasant remembrances of things that happened to me. Now, very few of you people would believe that at one time I came very near winning the prize in a beauty contest in this town. (Laughter.) I believe I tied for first place with another young man, and you must remember that no matter how old you get and how experienced you get, it is the boys and girls at the high school age that run the earth. When they settle a question, it is settled right. (Laughter.) It doesn't make any difference what you say. I am getting now where I appreciate that more than ever. You think that the head of a family, and the Governor of this State and the grandfathers and all those people are the big Ikes; but you are mistaken. When the daughter gets into high school, daddy resigns his position of second place in the family. There is no use in talking, he goes to the foot. That's all there is to it. (Laughter.) When those people settle a question, it is settled definitely. Now, at one time, along about 1895 or shortly after, the high school girls of this town gave me a tie vote with another man, whose name I will not mention because he is not here, as possibly the ugliest man in Little Rock. (Laughter.) Therefore, I say I came very near winning in a beauty contest in this city a long time ago.

We like to come to Little Rock. We like to come here, as has been often said, when we are invited to come, because it is centrally located. We can come in from any direction. We can come all the way around and come in the back side. We can leave home and finally arrive in Little Rock. Nobody can guard any one road and tell who is coming. It is nobody's business where we go or what we do on the way. Another thing, we always find new things in Little Rock; new things in the medical profession. If there is a new professional way to address your patients, if it is a fad to talk glibly, quickly and concisely in making your diagnosis and giving your drugs, the doctors in Little Rock are the first to do so. We get it afterward. That is one of the reasons we like to come here. (Laughter.) If it becomes the fashion to give all your medicines intravenously, the doctors in Little Rock begin it first. (Laughter.) And we take it up later. Group medicine in the State first had its birth in Little Rock. I think if one doctor took to riding a motorcycle, it would start here. We carry lots of things home that way. Lots of things we used to get here with we couldn't carry

home. (Laughter.) We had to stay over a while, before we could get home ourselves. (Laughter.) But that time has passed. Dr. Caldwell said that our patients would suffer a great deal while we are gone. They used to tell us to by all means attend the medical society meeting and give them a rest. We do that, and in a good many cases, speaking seriously, they undoubtedly enjoy it and are much benefited by it! (Laughter.) If these meetings come along about the first of the month, we are benefited financially. Nobody is expected to pay a bill that can be misplaced before he has an opportunity to read it; not before he gets the next one, anyhow. So we have some compensation for being away from home about the first of the month. The collectors come around in the middle of the month, too, sometimes. We missed them. Those things are a relief. They are part of this great relaxation that you hear people telling us about. That's what we go to the meeting for partly, to relax, let down, quit work. That is part of the relaxation, and not an insignificant part of it.

We are glad to be here because really this place represents the starting point for medical improvement in the State. We come here and we find out what's afoot; not only that medical advancements in the State are brought here by various visitors, but we swap ideas. And, as to our welcome, we anticipated that beforehand. We know it is here. This society meets here every second year. And, I believe that every member, when he goes home from Little Rock, appreciates the fact that the success of the Arkansas Medical Society is probably built up around its meetings in Little Rock. I thank you for your attention. (Prolonged applause.)

Hon. Otis T. Wingo, addressed the meeting, first expressing his appreciation of the opportunity to greet old friends in the medical profession for whom he held the most profound respect. He congratulated them on the spirit of progress and co-operation in evidence and assured the medical men of his sympathy and support in everything pertaining to better education of the laity, especially as to sanitation and hygiene. He said that many thoughtful men in Congress were convinced that the public health of the nation should have as much recognition as commerce has. Prevention was better than cure and a great nation like ours should put the welfare of its citizens above all else. A sound mind in a healthy body should be the great desideratum.

He congratulated the medical profession on the unselfish work of its members and the high ideals for which they were striving. He said he regarded public education as the Rock of Gibraltar against which the rising tide of propaganda, greed, bolshevism, strife and disorder would beat in vain, and its waves fall back in their angry foam to the depths of their own depravity.

He closed with a glowing tribute to the Wonder State and its progressive, law-abiding, energetic, philanthropic citizenry. He

cautioned all not to be too hasty in criticizing our lawmakers. The country was going through a period of reconstruction and encountering more or less friction in getting adjusted to new conditions. He counseled patience and patriotism, never forgetting that ours is a representative government and that it was the duty of our lawmakers to carry out the will of the people in wiping out the abuses and evils that exist, and we should never forget, in spite of all our difficulties, that the government for which our flag stands is the best that ever blessed mankind. He said the character of the American government would never rise above the character of the average citizen of our country; therefore we should centralize our efforts to mould and improve, strengthen and stabilize our young people in whom lies the hope of the future. Public health and public education should merit our most earnest and continued effort.

Dr. E. F. Ellis was called to the chair while President Cargile delivered his annual address.

(The President's Address will be found on the first page of this issue.)

Dr. Ellis: On the Committee on President's Address I will appoint Dr. Thibault, Dr. Wootton and Dr. St. Cloud Cooper.

MEMORIAL SESSION.

Thursday, May 18, 1922.

9:30 A. M.

The Memorial Session was called to order at the Crescent Theater by Dr. F. Vinsonhaler, chairman of the Committee on Necrology. After Massenet's "Elegy" had been sung by Miss Anne Bertner, accompanied on piano by Mrs. Hartman, the chairman read the names of the members of the society who had died during the past year:

LIST OF DECEASED MEMBERS.

Dr. Levi D. Crawford, Marked Tree, April 6, 1921.

Dr. S. P. Vaughter, Little Rock, May 3, 1921.

Dr. E. H. Martin, Hot Springs, May 5, 1921.

Dr. John W. Patton, Morrilton, May 11, 1921.

Dr. R. J. Adams, Morrilton, May 22, 1921.

Dr. B. L. Hill, Stuttgart, June 19, 1921.

Dr. A. G. Thompson, Pine Bluff, August 18, 1921.

Dr. A. L. Carmichael, Little Rock, August 29, 1921.

Dr. J. C. Chenault, England, September 28, 1921.

Dr. J. M. Spikes, Swartz, November 13, 1921.

Dr. I. M. Poynor, Berryville, November 21, 1921.

Dr. B. H. Green, Warren, December 19, 1921.

Dr. D. F. Wilson, Hampton, January 28, 1922.

Dr. W. A. Smith, Walnut Ridge, January 30, 1922.

Dr. Jno. M. Bearden, Springdale, February 5, 1922.

Dr. J. J. Johnson, Biggers, February 8, 1922.

Dr. L. H. Hall, Pocahontas, February 20, 1922.

Dr. Vinsonhaler: I will ask Dr. Williams to make some remarks concerning Dr. E. H. Martin of Hot Springs.

Dr. A. U. Williams: Dr. E. H. Martin, of Hot Springs, was born in Dinwiddie County, Virginia, in 1865. He graduated from the Ohio Medical College in 1887 and located in Clarksdale, Miss., where he practiced medicine until 1907. He then moved to Hot Springs where he built up a lucrative practice. Dr. Martin was generous to a fault. Any appeal for aid, either medical or financial, never went unheeded. He was a prince among good fellows. He made friends readily, both in and out of the profession, and had he turned his attention to commercial lines he would have, no doubt, succeeded for he had a strong personality and was a wonderful organizer. His friends were numbered by the thousands, because when he once made a friend he kept him. And those who knew him best will write his faults upon the sands and his virtues upon the tablets of their love and memory.

Dr. A. C. Jordan (Pine Bluff): Dr. A. G. Thompson was a man that made many friends. He was a competent physician, and a jovial, genial good fellow. I had the pleasure of knowing Dr. Thompson during my residence in Pine Bluff. In fact, he moved to Jefferson County about the same time that I did, he coming from a northern State and I from the State of Arkansas. In Jefferson County he practiced for a number of years in a little town near Pine Bluff now known as Moscow, then Linwood. I always found Dr. Thompson thoroughly lined up with organized medicine. And, while he was never very active in any medical matters, as far as medical organization was concerned, he was always on the right side, and he held the medical profession of Jefferson County and Pine Bluff in the highest esteem and friendship.

Dr. Vinsonhaler: Is there any one from Stuttgart or in that neighborhood that could speak of Dr. Hill?

Dr. W. H. Moorhead: I regret that I am unable to give you any data regarding Dr. Hill; but I can not allow this opportunity to pass without speaking a word in regard to him. I knew him intimately for some twenty-two or twenty-three years. He was always a friend of organized medicine, an active worker in our organization, and at one time Secretary of the District Medical Society. He was a worthy, active and upright man, and we sustained a great loss in his death.

Dr. Vinsonhaler: Dr. Brown, can you say something about Dr. R. J. Adams of Morrilton?

Dr. G. S. Brown (Conway): I knew Dr. Adams. He was an upright, ethical and a fine man, but I hadn't seen him for a number of years. He was always on the right side of organized medicine, and he was honorable and upright; good and true.

Mr. L. D. Cargile (Morrilton): Would it be out of place for me to speak just a word of Dr. Adams? I think he was one of the greatest characters that I ever knew. He was my physician for a good many years, and he was also my Sunday school teacher. He taught the Baraca Class of fifty or more business men. Unless you knew him personally, you could not appreciate his work. He was straight forward, upright, honorable in every way and a true patriot.

Dr. Vinsonhaler: Dr. Vaughter and Dr. Carmichael died last year in Little Rock. Both of them were well known to me. Dr.

S. P. Vaughter I knew first, as a young man when he first came to Little Rock. He was the physician of the Deaf Mute Institute. He came from Conway, Faulkner County, where I think his father had resided for years. Dr. Vaughter was for many years a practitioner in Little Rock. He served several terms as coroner of Pulaski County. I often think of the way that destiny treats different men, and I sometimes feel that Providence is not always just. In thinking of Dr. Vaughter, I can think of no man who had more difficulties and more grief to contend with than that man. His life was a constant struggle, not only in a professional way; but he was hampered by the illness of a wife to whom he was devoted and who afterward died of tuberculosis. Our estimate of men is often formed in a superficial manner. We never know those deep influences that mould and shape man's life and his destiny. I think we sometimes, in fact we often, judge and condemn men and judge them harshly, because we so little know the springs that feed the inner man, and the difficulties with which they have to contend. I think one of the greatest examples in literature is the story of Jean Valjean, the man who fought from crime, obscurity and wretchedness up into the perfect fullness of life. And, in a measure, I think that can be said of many men, and particularly Dr. Vaughter, although Dr. Vaughter had every influence that could be brought to bear to make him a good man, and he was in all his life a good man. But, yet it seemed to me that there were those difficulties that constantly confronted him from the time he began his professional life until he died. I always had an affection for the man and always felt that somehow he retained, in spite of all his grief and unhappiness, his buoyancy until the very last, and I think that the words of our friend from Hot Springs, with which so many of us are familiar, "we write their faults upon the sands, their virtues upon the tablets of love and memory," are particularly applicable here.

Dr. Carmichael was a young man, especially gifted. Had his health not failed, he would have become distinguished in his profession. Those of you who knew him will remember him as a man and student every inch, devoted to his profession, loving it beyond measure and thinking of nothing else. I often think what it means when a life like that goes out, and, perhaps, after all it is

best that we should go at such a time as that. Some one has said that, if one were to go it is best to go in just that way, with all the sails set "just at life's brightest, sunniest moment to strike the unseen rock and hear the breakers roar above a sunken ship."

We bid goodbye to both of those men with regret. Those of us who knew them miss them. We realize each year, as we read this list, that it contains the names of some that we love and that sooner or later our names will be written there along with the rest.

Is there any one else who wishes to speak upon any doctor who has died in the last year, to whom he wishes to pay tribute?

Dr. Hornbarger (Heber Springs): I can say a word on behalf of Dr. B. L. Hill and Dr. D. F. Wilson. I had the pleasure of attending my last term of school with those doctors. We were graduated in the same class. Dr. Hill was a very congenial, studious, gentlemanly student, ever at his post. I had very little acquaintance with him after our graduation; but heard from him often because at intervals I would see parties from his town and I would make inquiries concerning him. They always brought me word that Dr. Hill was very successful.

I graduated in the spring of 1891, and all that term I roomed with Dr. Wilson. At that time he lived in Summerville, and was a student in the Fayetteville University. He and I were very good friends, and I derived a great deal of benefit from my association with him, because he was a very faithful student. He was ambitious to learn all he could, and was very diligent; came to class with lessons well prepared. I shall never forget the winter that we spent together, and the words that he spoke when I met him, when I came to the term of lectures. We had both been here the term before, and when I met him he said, "I have been looking for you." He said, "I left home hoping that we would get the same room and study together." I appreciated that beyond measure. I esteemed Dr. Wilson not only as a very fine physician, but as a dear friend to me, a good student of medicine and a worthy doctor. I appreciated him as a man.

These words may seem mere boyish emotion all relating to our school days; but they are such as I feel that I could not refrain from uttering. I could not let this opportune time go by without saying a word in his behalf.

Dr. W. T. Fike (Warren): I would just like to speak a word for Dr. B. H. Green. We practiced medicine together for fifteen years. There is not a man that I ever met in all of my practice that came nearer treating a patient right and treating his brother right than Dr. Green. I miss him. I miss him more than any one else, except my own brother.

On motion the Memorial Session adjourned at 10:30 a. m.

GENERAL SESSION.

THIRD DAY.

Friday, May 19, 1922.

The General Session was called to order by the President, Dr. Caldwell, at 2:30 p. m., immediately after the adjournment of the House of Delegates.

President Caldwell: The first in order is the report of the Nominating Committee.

The report of the Nominating Committee is as follows:

FOR PRESIDENT.

Robert Caldwell, Little Rock.

VICE-PRESIDENT.

E. A. Purdum, Hot Springs.

J. D. Southard, Fort Smith.

L. T. Evans, Mt. Pleasant.

COUNCILORS.

Second District—J. L. Jones, Searcy.

Fourth District—A. Isom, Dumas.

Sixth District—Wm. Gibson, Nashville.

Eighth District—G. L. Henderson, Conway.

Tenth District—E. F. Ellis, Fayetteville.

DELEGATE A. M. A.

Geo. S. Brown, Conway.

SECRETARY.

William R. Bathurst, Little Rock.

TREASURER.

Robert L. Saxon, Little Rock.

President Caldwell: Are there any reports of committees or any new business?

Dr. Bradford: I have a resolution that I would like to introduce before the General Session:

Resolved, That the Arkansas Medical Society in session assembled wish to call attention of the people at large to the fact that it views with alarm the increased use of tobacco among all classes of people and especially decries the rapid increase in the use of the weed among children and women. The Society also calls attention that this is a vicious practice and will lead to physical, mental and moral degeneracy; that the weed is a very poisonous one and its alkaloid, NICOTINE, together with others produced from smoking, seriously affects the nervous

system of the user. The Society would urge the individual members of the profession of the State to stress these facts before the schools and clubs of the State, that in the end the people may awake to the urgent need of curtailing the use of this DRUG.

Seconded.

Dr. Mann: I want to offer an amendment to it, that the resolution be adopted and carried out as soon as the doctors themselves have practiced what they preach. (Applause.)

Dr. J. H. Benefield: In view of the fact that there is on our statute books a law against the sale of this pernicious drug to the youth of our country, I think it would be but fitting for this society to memorialize our law authorities to resume the execution of the law that we have upon our statute books now. (Applause.)

Dr. Hunt: I make a motion that that motion be tabled. Seconded.

Dr. Benefield: Let's have a rising vote on this.

Dr. Bradford: There is a motion to table.

President Caldwell: The chair will give you two minutes.

Dr. T. B. Bradford: The law on the statute books now is a law that I myself wrote. It repeals the old law that we had that prevented the sale of cigarettes to anybody. The law now is one that prohibits the sale of cigarettes to any one under eighteen. If the doctor over there expects to table a resolution here to prevent the enforcement of the law, then it seems to me we are in a State of anarchy. It seems to me that it is very unbecoming for the Arkansas Medical Society to go on record as not being in favor of enforcing the laws of this State. We have that law on the statute books now, and that is all that my resolution was, that we go on record as to preventing the sale or use of tobacco among children.

Dr. Hunt: My reason for tabling this motion is that, while I am in favor of the laws being enforced, if the officers are not enforcing them, the people should, get after the officers. It is none of our business to tell the officers what to do. (Applause.)

Dr. Gann: I would like to amend this motion by referring it to the sheriff of each county.

Dr. Benefield: I wish to state that there is as much propriety in this body asking the officers of the State of Arkansas to stand by the Constitution and laws of this State as it is for the gentlemen to pass the resolution favoring the motion that he made. (Applause.)

President Caldwell: There is a motion, that has been made and seconded, to table this resolution.

There being a division on a *viva voce* vote, the resolution was tabled by a rising vote, 34 to 31.

President Caldwell: Now comes the selection of the next meeting place of the society.

Dr. J. A. Moore, in behalf of the Union County Society urged that El Dorado be chosen as next meeting place. Dr. Niehuss supplemented Dr. Moore's invitation by emphasizing the peculiar fitness of that rapidly growing city. Promised ample hotel accommodations at reasonable rates and said they had twenty-four daily passenger trains. Thought visitors would be much interested in the gas and oil development and would enjoy the warm welcome that awaited medical men of the State.

Dr. A. U. Williams suggested the propriety of going to Hot Springs in 1923; ample hotel accommodations; purling streams; thermal waters; laughing children; smiling lassies; mocking birds caroling, and the grass covered with fresh "mountain dew," all blending into a composite hearty welcome.

Dr. Wootton also believed the visit would be much enjoyed. He said while in Little Rock, owing to crowd at hotel, a drummer came near commandeering his bed; Dr. Bradford took away his cigar and Dr. Walt forbade meat, bread and eggs, coffee or tea. In Hot Springs he declared personal liberty would be one of the cardinal principles, and visitors might have unrestricted freedom of the city.

Dr. Chas. Holt insisted that Fort Smith possessed all the attractions alleged to be at the other points, hotels, hospitals, large buildings, million dollar bridge, etc., and asserted it had been a long time since that city had entertained the State Society. He was followed by the revered Dr. Eberle, who assured every one that genial hospitality, a warm welcome and a good time would be forthcoming on arrival of the guests.

President Cargile: We will now vote on the next meeting place. I will appoint Dr. Norwood and Dr. Barlow tellers.

A ballot being taken, Hot Springs was selected as the meeting place of the society in 1923.

On motion a rising vote of thanks was given the Pulaski County Medical Society for its

kindness and hospitality during the meeting, after which, on motion, duly seconded, the General Session adjourned *sine die* at 3:30 p. m.

Book Reviews.

THE WRITING OF MEDICAL PAPERS.—By Maud H. Mellish, Editor of the Mayo Clinic Publications. 12mo of 157 pages. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$1.50 net.

This little volume will be appreciated by physicians generally. It will greatly aid untrained and partly trained writers to prepare for publication articles that will convey information with brevity, accuracy, and clearness, and adhere to the accepted forms of present-day usage.

MEDICAL ELECTRICITY, ROENTGEN RAYS AND RADIUM, with a practical chapter on Phototherapy.—By Sinclair Tousey, M. D., Consulting Surgeon to St. Bartholomew's Clinic, New York City. Third edition, thoroughly revised and greatly enlarged. Octavo of 1,337 pages with 861 practical illustrations, sixteen in colors. Philadelphia: W. B. Saunders Company, 1921. Cloth, \$10.00 net.

In this edition will be found the most important advances that have been made in radiography and in the standardization of apparatus and technique. The new inventions are described in this book. Another important subject is the rehabilitation of those suffering from the results of war injuries.

A TEXT-BOOK OF PATHOLOGY.—By Alfred Stengel, M. D., Professor of Medicine, University of Pennsylvania, and Herbert Fox, M. D., Director of the Pepper Laboratory of Clinical Medicine, University of Pennsylvania. Seventh edition, reset. Octavo of 1111 pages with 509 text illustrations, many in colors, and fifteen colored plates. Philadelphia: W. B. Saunders Company, 1921. Cloth, \$8.50 net.

This very instructive volume deals with disease in all its aspects. It includes the study of the causes, the manifestations, and the results of disease. It is divided into two parts; General and Special Pathology. Many new sections are found in this edition, and in every way presents a conservative opinion of the subject as it is understood today.

THE PRACTICE OF MEDICINE.—By A. A. Stevens, M. D., Professor of Applied Therapeutics in the University of Pennsylvania; Professor of Therapeutics and Clinical Medicine in the Woman's Medical College of Pennsylvania. Octavo of 1106 pages. Philadelphia. W. B. Saunders Company, 1922. Cloth, \$7.50 net.

This volume gives the most necessary points in pathology, diagnosis and treatment of the

various internal diseases. The contents is divided under the following heads: Infectious Diseases; Intoxications; Food Deficiency Diseases; Disorders of Metabolism; Diseases of the Digestive System; Diseases of the Respiratory Tract; Diseases of the Circulatory System; Diseases of the Kidneys; Independent Diseases of the Blood-Forming Organs and the Anemias; The Hemorrhagic Diseases; Diseases of the Spleen; Diseases of the Ductless Glands; Diseases of the Joints and Bones; Diseases of the Muscles and Myopathies without Obvious Changes in the Nervous System; Diseases of the Nervous System, and Diseases Due to Excessive Heat.

DISEASES OF THE EYE.—A handbook of Ophthalmic Practice for students and practitioners. By George E. DeSchweinitz, M. D., LL.D. Professor of Ophthalmology in the University of Pennsylvania. Ninth Edition, reset. Octavo of 832 pages with 415 text-illustrations and seven colored plates. Published by W. B. Saunders Company, Philadelphia, 1921. Cloth, \$10.00 net.

In calling the attention of our readers to this new edition by Dr. DeSchweinitz, a review is hardly necessary. We feel that his work is so well known that to announce a new edition is now available is all that is necessary.

The book records the important ophthalmic observations, therapeutic measures and surgical procedures which have been made and devised since the appearance of the former edition four years ago. The one-hundred-page section on operations gives the preparation of field, of instruments, dressings, sutures; general local and infiltration anesthesia; local hemostasis and the exact technique of all procedures.

THE HIGHER EDUCATION OF CHIROPRACTORS.

What is your favorite light literature? Detective stories? Mystery stories? Humor? Have you ever read the publications issued by the various species and subspecies of the chiropractic cult—for there is, as you know, a lack of unanimity among the chiropractors. One particularly choice piece of contemporary journalism is issued by a chiropractor factory in Fort Wayne, Indiana. Its July, 1922, issue makes good hot weather reading. The editor discusses a "model bill," recently drawn up by those chiropractors of Indiana who belong to a different subspecies from those represented by the publication in question. This

Fort Wayne journal views the bill with disfavor. It says, with refreshing naivete:

"To begin with there is absolutely no need of a chiropractic licensing and examining board in Indiana today. The existing lot of chiropractors in Indiana can not be improved upon. You are not being persecuted or prosecuted, you are left severely and strictly alone to practice your profession without let or hindrance from any source or any group of any kind. In fact, Indiana today is the best chiropractic State in the entire country. Chiropractic conditions are as near ideal as it is humanly possible to approach that condition."

But the fact that Indiana is the home of the free, chiropractically speaking, is not the only objection this journal has to the proposed bill. It seems that the bill would require applicants for chiropractic examinations to submit satisfactory proof of the possession of a preliminary education, equal to that of a high school. Perish the thought! As the editor says:

How many chiropractors in Indiana today could qualify under that rule? Of all the chiropractors in Fort Wayne, I do not happen to know of one that is a high school graduate. In fact, I believe that the total number in Indiana able to comply with that ruling would be less than two per cent of all the chiropractors in the State.

From the point of view of the owner of a chiropractic "college" the sentiments just quoted are eminently logical. It would be entirely unfair to chiropractic schools to insist on matriculants being educated human beings. What educated human being would ever attend a chiropractic school? Of course, from the point of view of public interest—but that's another story.—*Jour. A. M. A.*, July 15, 1922.

PROPAGANDA FOR REFORM.

Evans Cancer Cure.—Dr. R. D. Evans of Brandon, Manitoba, sells a "positive cure for cancer." The price is "one hundred dollars in advance!" The victim who parts with \$100.00 for this cruel and worthless fake is told to shave a patch about the size of a silver dollar on the crown of the head. The "cure" is applied to this spot. This is for the treatment of internal cancer. "For 'external cancer' the discovery is applied on the spot." From an analysis made in the A. M. A. Chemical Laboratory, it was evident that Evans cancer cure is essentially a mixture of one

part of a fatty substance (such as lard) and five parts of dried ferrous sulphate.—(*Jour. A. M. A.*, June 3, 1922, p. 1739).

MORE MISBRANDED NOSTRUMS.

The following products have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act:

Beil's New Nerve Tablets (Beil Mfg. Co.), consisting essentially of aloin, zinc phosphid, nux vomica extractives, resin, a laxative plant drug, magnesium and iron salts.

Diemer's Prescription for Gonorrhea and Gleet (Dr. F. W. Diemer Medicine Co.), consisting of pills which contain Epsom salt, calcium sulphid, ferrous sulphate and oil of cubeb, and tablets for external use, containing boric acid, zinc sulphate and hydrastin.

Diemer's Dyspepsia Tablets (Dr. F. W. Diemer Medicine Co.), consisting chiefly of baking soda, a laxative drug and ipecac alkaloids.

Diemer's Hot Toddy (Dr. F. W. Diemer Medicine Co.), tablets containing milk sugar, baking soda, a laxative plant drug and small amounts of ginger and red pepper.

Salicylates "Natural" and "Synthetic."—The Wm. S. Merrell Company rehashed the definitely refuted claim that "synthetic" salicylic acid is inferior to the "natural" kind. The Merrell Company suggests that, to avoid the effects of synthetic salicylic acid, physicians should specify "natural" and "Merrell" in writing prescriptions for sodium salicylate or any of the other salicylates. About ten years ago, the Council on Pharmacy and Chemistry instituted a thorough investigation of the asserted superiority of natural salicylic acid and salicylates over the ordinary or synthetic kind. This investigation afforded conclusive proof that the claim—based on a mixture of mysticism, commercial exploitation, misinterpretation and tradition—is without foundation. Nevertheless, the Merrell Company attempts to induce the medical profession to perpetuate this exploded fallacy and to specify the Merrell product, which costs twenty-four times as much as the synthetic sodium salicylate of U. S. P. quality. (*Jour. A. M. A.*, June 3, 1922, p. 1742.)

The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

DIRECTORY

OF THE

COUNTY SOCIETIES OF THE ARKANSAS MEDICAL SOCIETY

1922

COUNTY.	PRESIDENT.	ADDRESS.	SECRETARY.	ADDRESS.
ARKANSAS.....	E. H. Winkler, M.D.	DeWitt.....	M. C. John, M.D.	Stuttgart
ASHLEY.....	Chas. E. Spivey, M.D.	Crossett.....	L. C. Barnes, M.D.	Hamburg
BAXTER.....	P. H. Keeter, M.D.	Flippin.....	J. J. Morrow, M.D.	Cotter
BENTON.....	C. L. McNeil, M.D.	Rogers.....	K. B. Huffman, M.D.	Bentonville
BOONE.....	T. P. Fowler, M.D.	Harrison.....	F. B. Kirby, M.D.	Harrison
BRADLEY.....	G. L. Wilson, M.D.	Jersey.....	W. S. Ellis, M.D.	Hermitage
CALHOUN.....	C. T. Black, M.D.	Thornton.....	T. F. Rbine, M.D.	Thornton
CARROLL.....	Henry Pace, M.D.	Eureka Springs.....	G. W. Reagan, M.D.	Berryville
CHICOT.....	S. W. Douglas, M.D.	Eudora.....	J. S. Wilson, M.D.	Lake Village
CLARK.....	H. A. Ross, M.D.	Arkadelphia.....	C. K. Townsend, M.D.	Arkadelphia
CLAY.....	R. C. Lynch, M.D.	Success.....	N. J. Latimer, M.D.	Corning
CLEBURNE.....	Wm. J. Hornbarger, M.D.	Heber Springs.....	J. T. Matthews, M.D.	Heber Springs
CLEVELAND.....	A. J. Hamilton, M.D.	Rison.....	H. O. Wilson, M.D.	Rison
COLUMBIA.....	H. M. Kitchens, M.D.	Waldo.....	H. E. Longino, M.D.	Magnolia
CONWAY.....	J. M. Matthews, M.D.	Morrilton.....	H. E. Mobley, M.D.	Morrilton
CRAIGHEAD.....	W. W. Jackson, M.D.	Jonesboro.....	Thad Cothorn, M.D.	Jonesboro
CRAWFORD.....	O. M. Bourland, M.D.	Van Buren.....	S. D. Kirkland, M.D.	Van Buren
CRITTENDEN.....	Hugh B. Henry, M.D.	Hulbert.....	L. C. McVay, M.D.	Marion
CROSS.....	W. B. Barner, M.D.	Wynne.....	Thos. Wilson, M.D.	Wynno
DALLAS.....	J. Y. Smith, M.D.	Sparkman.....	O. W. Hope, M.D.	Fordyce
DESHA.....	H. T. Smith, M.D.	McGehee.....	W. H. DeClark, M.D.	McGehee
DREW.....	S. O. Kimbro, M.D.	Monticello.....	Stanley M. Gates, M.D.	Monticello
FAULKNER.....	I. N. McCollum, M.D.	Conway.....	J. S. Westerfield, M.D.	Conway
FRANKLIN.....	A. J. Hansberry, M.D.	Wataulula.....	Thos. Douglass, M.D.	Ozark
GARLAND.....	G. E. Tarkington, M.D.	Hot Springs.....	O. H. King, M.D.	Hot Springs
GRANT.....	C. F. Cole, M.D.	Prattsville.....	J. L. Butler, M.D.	Sheridan
GREENE.....	B. E. Ellis, M.D.	Greenway.....	F. M. Scott, M.D.	Paragould
HEMPSTEAD.....	Don Smith, M.D.	Hope.....	Luther M. Lile, M.D.	Hope
HOT SPRING.....	E. T. Bramlitt, M.D.	Malvern.....	Chas. Prickett, M.D.	Malvern
HOWARD.....				
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THE PERMANENT CURE FOR TRIGEMINAL NEURALGIA.*

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I realize perfectly well that whenever a surgeon begins to talk about "cure," his hearers begin to think he ought to consult an alienist or something of that kind. It is a fact, perhaps of which we ought to be ashamed, that we are not able to cure that disease without the aid of surgery. But we are forced to resort to surgery if we want to cure the disease permanently.

Before describing the surgical procedure at all, it is necessary to say something about the differential diagnosis of trigeminal neuralgia. There is perhaps no disease in the whole category of diseases we are called on to treat where the need for relief is so urgent as it is in this disease. Every one has run across trigeminal neuralgia. There are a great many neuralgias that are sometimes called trigeminal that are not true trigeminal neuralgias. If the procedure I am about to describe is applied in anything except real trigeminal neuralgia, I think disappointment will follow.

Our knowledge of the disease goes back to the dawn of medical history. The classical picture of the disease is one that is well known. Generally, it comes on somewhere about thirty-five, although we have cases that are in the early twenties, and some even in childhood. Any branch or division of the nerve may be first affected, but most often it is some branch of the middle division; and about the most frequent spot for its commencement is somewhere in the upper lip between the angle of

the mouth and side of the nose. It begins as a sharp lancinating pain, spasmodic in character, and lasts for a few seconds and is gone. Then it comes back again, perhaps in half an hour or in less time, and this continues for a few days, perhaps, or perhaps only for a day. The recurrence of these spasms may go on for a few days; but gradually as time passes, the duration of the spasms is longer, until perhaps the patient will have an "attack," as he calls it, that lasts for from weeks to months.

The pain at first is limited to the one spot at which it began. By and by he notices it shoots in various directions up toward the head. It does not always follow the trajectory of the nerve involved. It may begin close to the lip, and the patient will tell you it runs alongside his nose toward the top of his head. Often there is a painful spot in the region of the gum of the last molar, or perhaps in the bicuspid region, or inside the cheek. The slightest pressure over the spot where this pain began while the patient is in one of his attacks is liable to produce a spasm; and he tries to avoid anything that can touch that spot. Speaking or drinking or eating or even a draft of cold air, may be enough to excite a spasm.

Presently, other spots in the same nerve distribution may become affected, and it goes to other divisions. Generally, those involved are the lower two; but the entire side of the head may be the seat of the pain when the disease has reached its height.

Now, there is a neuralgia that begins in the middle division of the nerve and radiates backward apparently along the base line of the skull. It is accompanied with pains behind the ear, and it may radiate down the shoulder and arm. It is not true trigeminal neuralgia. The operation directed toward its cure should not be root section. I have had patients who have had the ganglion removed for this neuralgia and who still complained of the trouble.

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It has come to be called Sluder's neuralgia. He discovered if he applied cocaine to a certain area inside the nose near the region of the posterior part of the middle turbinate bone, that the spasm was relieved for a while. Then he resorted to alcoholic injections into the ganglion of Meckel, and has succeeded in curing a great number of such cases for a greater or less length of time. It seems to be in some peculiar way more successful than resorting to the actual section of the root or the removal of the ganglion of Gasser. It is interesting to know that Carnochan of Philadelphia, about 1850-1860 was removing Meckel's ganglion as a cure for tic douloureux and both he and others reported several successful cases. Lately it has been removed by Frazier for Sluder's neuralgia and with good success.

There is a neuralgia that belongs to the facial nerve, which is a motor nerve with wide sensory connections. Stretching of the facial nerve has been beneficial in that disease. This kind is rare, and is generally accompanied with facial spasm.

There are certain diseases of the sinuses more or less likely to be accompanied with pain in the face. Disease of the middle ear may be at the foundation of a trigeminal neuralgia. So it is with disease of the sphenoidal and ethmoidal sinuses. If one is in consultation with a good rhinologist, generally the cause of that neuralgia can be found, and it is not necessary to resort to root section for the cure of the disease.

Caries of the teeth is sometimes another important factor in the production of the neuralgia. Of course, everything of that kind should be investigated and excluded before any one resorts to actual surgery on the nerve itself.

I remember a case that came to the clinic and passed under the eyes, I think, of about six rather alert men, and had an alcohol injection made. It came back for a second one some time later, when it was discovered the patient had a cancer that began in the furrow between the tonsil and tongue. This man presented as fine a picture of true trigeminal neuralgia as I have ever seen. This is a good example of reflex neuralgia.

I am familiar with a patient who once in a while has an attack that seems to begin about his ear and run to the top of his head, lasting three or four days at a time. He is relieved by the rhinologist, who makes an ap-

plication in the region of the sphenoidal sinus and cures the disease.

It is necessary to think about tumors that might involve the ganglion. Brain tumors, etc., have been associated with trigeminal neuralgia. There should be an examination made of the eye ground and the neurologist should be consulted in order that one does not do surgery where it is not indicated.

There is another thing that is also resorted to in these patients, and that is X-ray examination. A stereoscopic picture of the skull, made in two directions, is always made; but so far we have not found anything that might be of very great benefit.

The medical cures of the disease I shall not go into. Final resort must be had to morphine or some of the opiates, and many come in that condition where they have had it for some time. Finally morphine does not relieve the pain unless the patient is kept deeply under its influence all the time while the attacks are in progress.

A patient sometimes comes in with one side entirely unwashed because he does not want to touch that side at all for fear of exciting a spasm. One side of the tongue may be coated while the other side is clean, the patient keeping all the food on the good side of the mouth while chewing. Usually, however, very little solid food is taken while an attack is on.

With regard to the cure of the disease, about the commonest operation that is performed for this disease is tooth extraction. Nearly all of the patients have had more or less of their teeth extracted. It is thought by the patient the tooth is involved, and the doctor thinks so, too; and it is removed. Then he finds out it was not the proper tooth; it was the tooth in front or behind this. Finally, all the teeth have been extracted. I have seen many gums where all the teeth have been extracted, for the cure of the disease; of course, without benefit.

Nerve section, or cutting of nerves, has long been resorted to by surgeons for the cure of neuralgia. As long ago as the second century, cutting of nerves has been practised. It fell into disuse, but was revived one hundred years ago. Abernethy cut a section out of the ulnar nerve for the cure of the disease in the little finger. It was discovered that the nerves soon reunited and the disease became as bad as ever. It was noticed if a section were removed, the disease was longer in coming back.

A great many other procedures, such as burning the nerve, and splitting the ends and turning them back so they could not unite, were resorted to. Toward the end of the last century, Abbe advised the interposition of some solid substance between the sectioned nerves.

Thiersch advocated the removal of the branches of the nerve, and was successful in tearing out large pieces. The longer the branches removed, the longer was the recurrence of the disease delayed. The operation of Malgaigne, cutting the infra-orbital and tearing it out, is still resorted to; but none of these are permanent in their results.

Mears, in 1884, suggested that the ganglion of Gasser be removed, because it had been discovered that the sensory spinal nerves had their origin in the ganglion of the posterior root. The fifth nerve being analogous to a spinal nerve, ganglionectomy was recommended.

In 1890, Horsley had done the operation on monkeys and dogs with success. He tried it on a human being, going across the dura to do it; but the patient died on the table.

Rose, his pupil, had a case in which the patient wanted the whole upper jaw removed for neuralgia. Even such a terrible operation had been previously practised for the cure of this disease and Rose undertook the operation, with the understanding that if it were possible, after removing the upper jaw, he would bore through the base of the skull and remove a portion of the ganglion. The patient consented, the operation was successful; but the procedure never became popular.

A short time after this the method of opening the skull and leaving a portion of the bone in the flap was devised by Wagner.

Sometime later, Hartley, of New York, opened the side of the skull, pushed the dura to one side, and removed the ganglion. Six months afterward, Hartley, having in the meantime reported his case, a German surgeon, Krause, reported a series of operations of exactly the same kind. It came to be known as the Hartley-Krause operation. The mortality was high.

The French surgeon, Doyen, advocated cutting lower down without turning up a flap of bone—just gnawing away a portion of the skull and removing the ganglion.

The procedure followed by Cushing resembles his, but the base of the skull is not gnawed

away so far; the dura is pushed up and the ganglion is reached. He leaves the upper part of the ganglion in order not to have any eye troubles follow. It seems to me if the ganglion is left at all, the disease is likely to recur. When a patient approaches us with request for an operation of this size, he does not want any come-back. He wants to be permanently cured.

The chief objection to it is that it is an operation of some magnitude, and when practised under general anesthesia, we sometimes have some patients who were supposed to have had the root cut, but who continued to have the pain. Some have even been operated upon several times. This is not the fault of the operation.

Another objection is the danger. It is in *unskilled* hands a *very* dangerous procedure; but it *can* be safely done. In the best hands, even under general anesthesia, the mortality is less than one-half of one per cent. Under local, the mortality should be still less than this. What major operation is safer?

Another objects because the eye may be lost. It was learned by Majendie that if the branches of the first division were cut anterior to the ganglion the animal lost the eye; but if the section was made proximal to the ganglion the eye was not affected.

After ganglionectomy eye troubles are very common. Corneal ulcer develops which often results in total loss of the eye, even both eyes have been lost as a consequence. However, it has been discovered that if the upper part of the ganglion is left, keratitis is not likely to develop. It should be remembered, however, that a ganglionectomy which leaves the upper part of the ganglion intact does not insure the patient against recurrence of the disease in the ophthalmic division. It must be remembered, whether root section or ganglionectomy be done that the cornea and conjunctiva become insensitive and that particles of dust may enter the eye and the bacteria thereon cause infection producing keratitis, corneal ulcer and loss of the eye.

Another objection is that the side of the face may be paralyzed as a consequence of the operation. It would seem strange nowadays that such an objection could be offered to a patient by a physician. In the old days when physicians were not supposed to know anatomy, such an objection was excusable—not now. There is, however, a certain amount of

paralysis of the frontalis of the operated side and a certain amount of weakness is often seen in the muscles that move the upper lip or close the eye. Even in the operation that I do where the incision never crosses the facial nerve I have noted these palsies. I think they are due partly to pressure of retraction and partly to interference with one or more of the petrosal nerves. No one seems to know for certain what is the exact cause. Paralysis that have occurred in my series have recovered in about six months. Those recently operated still show some palsy.

The operation is done entirely under local anesthesia. Of course, if the patient prefers a general anesthetic, I have no serious objection to doing it that way; but under local, while the operation is more tedious, there is less shock, less danger and the cure is more certain.

No flap is used at all, the incision is linear, extends from the zygoma about a thumb's breadth in front of the ear backward and upward to the parietal eminence. This line is infiltrated with one-half per cent novocain, all of the tissues are flooded, including the periosteum; then on either side of the lower end of this line the tissues are similarly flooded, the incision exposes the fibers of the temporal muscle, the temporal fascia is divided at its attachment to the zygoma, both layers, so that it can be drawn forward and backward with ease.

The muscle is split and retracted to expose the underlying bone. The periosteum is scraped back, the bone drilled about an inch above the base line, the opening is enlarged with rongeur, the dura is pushed upward, exposing the floor of the middle fossa. Presently the middle meningeal artery is encountered, tied and cut and almost at once the third division is seen entering the foramen ovale. The dura covering it is incised and the nerve is traced upward and backward exposing the ganglion. The dura is elevated from the ganglion, continuing backward and upward and soon the root is seen entering the ganglion just above the apex of the petrous portion of the temporal bone where it can be easily cut or avulsed.

The wound is closed, usually with a small drain. This drain is removed at the end of twenty-four hours. Generally, for the first few hours there is considerable discharge of cerebro-spinal fluid. The result is the permanent cure of the disease. Of course, there

are cases that will not be cured; but it is my belief that *if the case is real tic douloureux and if the root is entirely cut or avulsed*, the cure is absolute and permanent. There is no such thing as regeneration of the root, or rather of its fibers once they have degenerated within the brain substance. This they will do if the root is sectioned or avulsed.

THE DARWINIAN THEORY.*

Thos. Douglass, M. D., Ozark.

The idea of organic evolution originated with the "Nature Philosophers" of the latter part of the eighteenth century; but only became of importance when Lamarck, in 1809, attempted to show the method. He regarded habit as the chief cause of evolution. It was about fifty years later that Charles Darwin made his famous voyage on the Beagle, which lasted five years. The result of the publication of the researches he made on that voyage was the greatest revolution in thought of modern times.

The problem of the origin of man is of thrilling interest. Upon its correct solution depends a number of questions of the utmost importance. To most physicians and a majority of scientists, evolution has become the established order; anything else is almost unthinkable. Man has been living on this earth some hundreds of thousands of years. According to Wells' History, life began somewhere from one to three hundred millions of years ago in the Proteozoic age. Pithecanthropus Erectus, the earliest known man-like animal, is supposed to have lived in the beginning of the Pleistocene, about 500,000 or 600,000 years B. C. The Heidelberg Man came next about 250,000 years B. C. The Piltdown Man appeared about 100,000 years B. C. and is called Eoanthropus by the anthropologists. The Neanderthal Man lived about 50,000 years B. C. All these are sub-men and do not belong to the genus Homo Sapiens, who came about 15,000 years B. C. This is, according to Wells' History, the Rhodesian Man, recently found, and said to be the earliest known specimen belonging to the present order.

Although man has been on the earth all these centuries it is an astonishing fact that

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he has not the slightest idea whence he came, what he is here for, what he should try to do, how to really progress in a favorable direction, nor whither he is going. His ideas as to what constitutes an ideal man, or an ideal community, differ very widely. Who can answer the question: What is the measure, the specification, of the perfect man? How shall a man order his life for the best?

We find the wisest and best of men differing radically on the profoundest and most important questions of life. With little thought or preparation men feel themselves perfectly free to enter upon the most important relations, as that of marriage, or feel themselves just as free to refrain from marriage. Rarely does any age recognize its great men. Inestimable service and genuine greatness of character often go unrecognized. Even at this late date men have the vaguest ideas regarding the important science of eugenics and hesitate to begin to make any restrictions, being so uncertain as to any real measure of fitness to reproduce. There is wide difference of opinion on educational subjects. We do not know what the best sort of man is nor how to bring about his development. We permit without restriction the marriage of the unfit, knowing full well the tremendous danger of the reproduction of mental defectives and criminals. Man boasts of his intelligence and exhibits his folly since there are on every side abundant evidences of lack of intelligence. The average intelligence of the drafted men in the late war was that of a child of thirteen years. The general average is probably no higher. Practically every school district in this State is either facing a crisis or is complacently inefficient. The daily newspapers furnish abundant evidence of a low standard of intelligence. Crime in disgusting detail, stupidity and nonsense vying with the patent medicine advertisement for space constitute the daily intellectual pabulum of everybody. Why, then should man be offended at the suggestion that he might be a descendant of the monkey tribe? Charles Darwin convinced the scientific world of the truth of the theory of evolution, and it is pretty generally accepted now by everybody, except William Jennings Bryan and Wilbur Glenn Voliva. Dr. J. M. Bell of St. Louis, also dissents, I believe.

This paper is an endeavor to prevent the members of this society from being over-influenced by these gentlemen, and to conclude

too hastily with the editor of the Southwest American at Fort Smith that Darwinism is dead.

Robert Paine Biglow says in the Reference Handbook of Medicine: "We certainly can not honor too highly the pure love of truth and devotion to science uncontaminated by ambition for fame which we see in these two men, Alfred Russell Wallace and Charles Darwin, and we are especially called upon to admire the loyal and ungrudging way in which Wallace attributes the great discovery to Darwin. It is of interest to Americans to note that the man who furnished the necessary cue both to Darwin and Wallace, Thomas Robert Malthus, received it in turn from our own fellow countryman, Benjamin Franklin."

George Bernard Shaw says of Darwin: "He was conscious of having discovered a process of transformation and modification which accounted for a great deal of natural history; but he did not put it forward as accounting for the whole of natural history. He included it under the heading of Evolution, though it was only pseudo-evolution at best; but he revealed it as *a* method of evolution and not as *the* method of evolution."

We of this generation do not know anything of the bitterness of the struggle which resulted from Darwin's announcement of his conclusions. Ever since that time Darwin has been called agnostic and atheist. There are in his writings many evidences of religious belief. In 1889 Prof. Charles A. Todd, professor of anatomy in the Missouri Medical College at St. Louis, himself an ardent Darwinist, convinced by his studies of comparative anatomy, in which he took great interest, did not dare to teach the doctrine of evolution to his classes because of religious prejudice. Since that time it has grown in favor steadily until practically the whole scientific world and at least half the religious world accept it as essentially true. It is not surprising that a doctrine so revolutionary in character should have been received with doubt at first. Mankind had long accepted as true a literal interpretation of the Genesis account. Theologians had long taught that man was created by a special creative act, a mature, full-grown pair being the progenitors of the whole race. This was as far as man could think at that time. He knew nothing for thousands of years about the cellular structure of the body, nor of the fact that man was being created every day, before his own eyes, from a single-celled or-

ganism. Does it not seem strange that after it became known that man began life invariably as an impregnated ovum, it does not occur to anti-Darwinists as highly improbable that of all the many millions of men who have lived, all would have been developed from the ovum, the only exception being the first pair? Is it not highly improbable that the first pair would be created so differently from all the millions of others? This is one of the obvious facts which so strongly supports the Darwinian hypothesis. Also, the remarkable similarity in bodily structure and function between man and the other vertebrates very strongly suggests a common origin and relationship.

Compare the human body with any of the vertebrates or with many of them at any rate. There is the same general plan, skeletal framework very similar, the same organs having identical functions, the same alimentary tract with similar digestive functions. Brain, heart, lungs, liver, spleen, kidneys, adrenals, pituitary, thyroid, ovary and testis with identical function and arrangement and the same chemistry. In both the organism knows more wonderful chemistry than our wisest chemists ever dreamed. They even have mental traits in common. They eat and sleep, and dream, and play and love and hate and fight and destroy—alike. Can all these be accidental similarities? If God made man a perfect, mature, fully-grown first pair, and from these came the race, did he then use man as a model for the general construction of all the other vertebrate animals? Or did he use the vertebrates as models upon which he improved in the construction of man? Beyond doubt, the other vertebrates existed before man. Beyond any possible question, there is some relation between man and the other vertebrates. Is it not astonishing that God should so nearly duplicate man as in the chimpanzee and the anthropoid apes? Man's brain is his chief mark of distinction. Some of the lower animals have faculties that are much more highly developed than man's, as for example the olfactory sense in the dog. Man's brain development seems to have depended largely upon two things: The hand and speech. His reasoning powers depend upon the latter and to this day a man's mental development is clearly indicated by his language resources, by the words and phrases he has at his command and uses; or by the things he can do with his hands. We can never cease to marvel at the wonderful skill of some human

hands and we know that they mean some wonderfully developed brain centers back of them, in turn developed by the training of the hands, and we know also, that many, many generations were required to produce them. "There can be no doubt," says Charles Darwin, "that the difference between the mind of the lowest man and the highest animal is immense and yet the difference is certainly one of degree and not of kind."

The world has pretty generally accepted Weisman's dictum that acquired characters are not inherited. This shows how persistently we hold to a most improbable thing, for all the probability is in favor of the inheritance of acquired characters. Weisman cut off the tails of numbers of generations of rats expecting them finally to lose their tails. This experiment was foredoomed to fail. As George Bernard Shaw says he should have set about convincing the mind of the rats of the absolute necessity of losing their tails for the good of the race when in due time the tailless rat would have appeared. That was impossible because the human experimenter could not get at the mind of the rat.

All the evidence given by paleontology—and that is a great deal—is in support of evolution. All the fossils discovered indicate its truth. Henry Fairfield Osbourn says (*Current Opinion Magazine*): "We are now able to assemble and place in order line after line of animals in their true evolutionary succession extending in the case of what I have called the edition de luxe of horses over millions of years." The Foxhall Man, the Piltown Man, the Heidelberg Man, the Neanderthal Man and now the Rhodesian Man constitute a chain of irrefutable evidence. These were not known to Darwin. All have been discovered since his death. H. F. Osbourn says he could not have dreamed of such a flood of proof and truth. Other convincing evidence is found in embryology. As Dr. Lyman Abbott says: "That every individual man has been physically developed out of previous animal forms is neither guess, hypothesis, nor deduction. It is a fact taking place every day and observable and observed by students of life." Human embryos are remarkably like the embryos of other vertebrates. See illustrations in Haeckel's "Last Words on Evolution." The presence of a number of vestigial organs in the human body can only be explained by the evolutionary hypothesis. Clearly the body is undergoing

evolutionary changes all the time. We recognize with regret that we are certainly losing our hair and our teeth. The colon is on the way to be lost; it is superfluous now. We have no idea what will go next. Apparently, we will soon travel entirely by auto and airplane and quit walking and then we will lose first the great toe, then the foot and next the legs. Quoting again from Robert Paine Biglow: "In physics and in chemistry the supernatural has been replaced by the natural until the doctrine of special creation, if accepted, would remain the only exception to the general rule that all phenomena of nature are to be explained by natural laws."

Let me repeat that it is highly improbable that of all the great family of vertebrates all had one origin except man. And no one argues that they were not made by the same Creator. The only point of contention is that a single pair of human vertebrates were created in a different manner.

There were two reasons for this point of view, to believe that man and the other vertebrates were created in the same way was thought to degrade man to the level of animals—animalism. The other was that Darwinism was thought to contradict the Bible account. For this reason the theologians and church people attacked it with vigor and have been conducting a losing fight ever since. The latest opponent being William Jennings Bryan, who takes up the old arguments with great vigor and enthusiasm, very much as he used to advocate the coinage of silver sixteen to one. Mr. Bryan's chief objection is that it conflicts with the Genesis account and will lead, or is leading to atheism, and will destroy the church. Many Christians do not hold this view. They recognize that the wonderful and beautiful story of the creation as recorded in Genesis is not to be taken literally. It was not set forth as scientific account. The real difficulty has been, not with the Bible, but with our interpretation of it. The "days" of creation were not our days of twenty-four hours. They were much more likely to correspond to millions of years. Dr. Millar, of the Arkansas Methodist, recently in a most fair and candid discussion of the subject, said: "Practically the only difficulty in the way of accepting evolution as God's process in the development of the universe was the notion that the 'day' mentioned in Genesis was a day of twenty-four hours. The best authorities in our church now recognize the fact that these

days were creative days or periods." Creation is going on today just as it has always been going on. Right before our eyes it is developing in wonderful fashion.

George Bernard Shaw speaks of Creative Evolution "as the genuinely scientific religion for which all wise men are now anxiously looking," and G. B. S. thinks he is religious.

Mr. Bryan says Darwinism will destroy the church. That of course is nonsense. If the church is at all what it thinks it is, it can not be destroyed. That with which Darwinism really may be thought to conflict is the theory of Bible inspiration held by Mr. Bryan and the rest of the orthodox. Mr. Bryan, a progressive in politics, finds himself in the ranks of the religious reactionaries. That the Bible was literally, verbally inspired—"dictated"—can not longer be held by rational minded people. That theory will not bear any kind of investigation. This was clearly stated recently by Prof. E. L. Shaver, Professor of Religious Education at Hendrix College, he said: "We do not believe that God dictated the Bible; but that it was the work of inspired men, some more inspired than others."

The trouble with Mr. Bryan and the orthodox is that upon this theory of literal inspiration they hang the authority of the Bible. The real menace to Christianity is not Darwinism, but orthodoxy.

The Bible should be studied and judged just as any other book, for what it contains within itself. Is any man who loves the Bible afraid to let it stand upon its own merits? The orthodox are bibliolaters and heed not the admonition, "The letter killeth and the spirit maketh alive." They worship the text while there is the widest diversity of opinion as to the meaning of the text. Consider the warm discussion that has long raged over such futile questions as the mode of baptism, infant damnation, etc. They are led to extremes in the matter of Sabbath observance, following the Pharisees rather than Jesus Christ who said, "The Sabbath was made for man and not man for the Sabbath." Sunday baseball is forbidden and wherever they can they close up all cold drink stands and everything else on Sunday. Theaters are taboo and even the moving picture shows are condemned wholesale by some. Puritanism is the logical result of bibliolatry. There is the widest diversity of opinion as to the meaning of the Bible text resulting in a great many different sects each believing that he has the root of the mat-

ter with him. A logical result of bibliolatry is strange and fanatical religious organizations. Some of them still believe in faith cures. Some like Voliva would controvert all science and common sense. Just now woman's dress is the subject of much adverse criticism while woman goes merrily on—undressing. And why not? Were not Adam and Eve naked and unashamed in the Garden of Eden? And why be ashamed of the human body? In actual fact has there ever been anything created more beautiful than the perfect human form? Why then should its beautiful lines be hidden by clothes?

It seems quite probable that we are going to see more of it—without shame and very likely with wholesome effect. It is perfectly clear, at any rate, that present day tendencies that are not entirely wholesome, will have to be met by reason and common sense and not by authority.

Mr. Bryan says that Darwinism is leading to agnosticism and atheism. I have failed to find atheistic or agnostic tendencies in Darwin's writings. And certainly Henry Drummond, who wrote an important contribution to the subject of evolution, "The Ascent of Man," was a most devout Christian. Bergson says: "Apart from the question to what extent the theory of evolution describes the facts and to what extent it symbolizes them, there is nothing in it that is irreconcilable with the doctrines it has claimed to replace, even with that of special creation to which it is usually opposed."

It is probably true that there is a strong tendency amongst educated people away from religion; but this can hardly be charged to Darwinism. Beyond doubt religious views are changing and this is most evident in the colleges and universities as it should be. The church is conservative and afraid of any change; but a courageous church worthy of its great founder and of its great mission will lay aside its outworn beliefs and will lead in the search for truth instead of hanging on the rear guard and hindering the advance.

Man is just beginning to take a conscious and intelligent part in evolution. The problems involved are tremendous; but no limit can be set to the possible development of the human intellect. Man hardly dreams of the possible high destiny before him. Life is evolving before his eyes and his great part to learn how to mould and direct the great stream with its myriad forms and possibilities.

Man needs but the inspiration and the indomitable will. Progress is not imperative. Witness that many races of men have made no progress, as the negroes in Africa, the Australian Bushmen, and what fatal defect caused the halting of the apes and chimpanzees?

It must be evident to every thoughtful mind that all the long painful, difficult history of man, often sordid and cruel and sometimes terrible, must have some tremendous meaning which he should try to learn, for the overwhelming fact remains that he has not the slightest idea whence he came, whither he is going, nor what he should be about.

Within himself man carries a record of his own evolution. When he has learned to read that record, then indeed will he have knowledge of vast extent and importance. He will know what he can do and how he should proceed.

Bergson says: "Instinct is moulded on the very form of life. If the consciousness that slumbers in it should awake, if it were wound up into knowledge instead of being wound off into action, if we could ask and it could reply, it would give up to us the most intimate secrets of life." With some comprehension of the limitless difficulties man will know how to endeavor to circumvent them. Since he has come thus far over a journey lasting millions of years, he can proceed farther through other millions of years and perhaps control the universe.

Although the journey has been long and beset with many difficulties, it has not been by any means impossible. The fact that the goal is not within our present vision should not discourage us. Pessimism is as foolish as excessive optimism; neither will get us anywhere. A question of such great importance as Darwinism can not be settled by forbidding its consideration in the public schools as Mr. Bryan would have us do. The theme is of vital interest and importance to every doctor of medicine since his daily study has to do with the vital forces, and the correction of pathological tendencies. His great problem is to deal with perverted human psychology. More than any other he stands at the very gates of life and watches the ebb and flow of the wonderful tide. He of all men should be a profound student of the deepest things of mankind. Wonderfully blessed in privilege and opportunity the medical men has contributed a great part to human prog-

ress. A brilliant future surely awaits his earnest endeavor. Let us do our part in what Mr. H. G. Wells calls "the race between education and catastrophe."

DISCUSSION.

Dr. J. T. Clegg (Siloam Springs): The fact of evolution is accepted by all observing and thinking men and women. The factors of evolution are not so well known, but the facts of evolution have been recognized for the past hundred years. The factors of evolution are still being developed. There is still a difference of opinion among men of science in reference to where evolution begins and how it proceeds. Darwin has not been overthrown in his theory; but yet his theory has been improved upon by such men as Bateson, Conkling and others of equally observant powers. These men are developing more about the process of evolution in the laboratories today in the study of biology than Darwin has observed in paleontology. They are now working it out to a scientific basis. It has been very well established that the process of evolution begins in the germinal cell, probably in the chromosomes making up the germinal cells. That influence of other environment does have something to do with the development of the animal and the species is illustrated, too, by experiments in the laboratory. For instance, I think that it was Loeb that fed thyroid extract to an embryonic frog, a frog in the very early stage of development, and developed him into a well-developed frog of very minute dimensions. He fed other extracts to other tadpoles, and they failed to develop a frog at all; but remained in the tadpole stage as long as they existed. These and many other experiments that are being carried on today in the laboratory prove that there are factors in the process of evolution that are yet being developed.

There was a certain class of anti-evolutionists, or a certain class of critics, who took advantage of Bateson's remarks at the Association for the Advancement of Science that met in Toronto last winter, and tried to make many believe that he had overthrown and overturned and rejected the Darwinian teaching. That was not true. Prof. Bateson only commented on it and related these facts to that association. I was not in attendance at that meeting; but I read the proceedings very soon after they were published, being a member of the association myself and having early access to its literature.

Dr. H. Thibault (Scott): I believe that Dr. Douglass' paper is another unfortunate event in the history of evolution; not because his paper is not well written, but because it fails to observe that necessary dictum of keeping things separate. I believe that the historical debate between Huxley and Gladstone did both sides damage because it was carried on by two men, each of whom lacked one necessary attribute. Huxley not being able to believe without thinking and Gladstone not possessing the faculty of being able to think without first believing. Any controversy or any discussion of evolution that takes in as much of the subject as Dr. Douglass has taken in and mentions his belief is unfortunate, because it confuses the issue. Religion is purely a matter of faith and is not demonstrable. It is separate from any laboratory phenomena. On the other hand, biology and evolution are simply matters of fact to be demonstrated and registered and added together to produce certain results.

There is another unfortunate incident in connection with Dr. Douglass' paper that has misled more scientists and has side-tracked more men who have

chosen to discuss this matter who were not scientists than any other one fact; and that is the minute they go to talking about evolution, they pick up the one animal whose life is so near the length of their own that they can not even study evolution in that animal. They either take man, an elephant, or some other long-lived animal as an example, and they don't have time to observe it. The simple phenomena of evolution can be observed in one man's lifetime only when he takes such living matter that lives over such short periods and produces so many generations in a given length of time that he gets a chance to actually demonstrate the result of repeated development in a given environment. Take, for instance, the cholera bacillus that, under natural circumstances, is known to be non-pathogenic to all other animals except man.

In the course of a great many generations you can produce cholera spirilla by growing them in celloidin sacs in the peritoneal cavity of guinea pigs that will be deadly to the guinea pig, and growing them again in the ordinary culture medium that the other cholera germs are grown on, they still retain for a certain length of time their deadliness to this animal. Those impressions of environment continue getting stronger until after a while this power to produce disease in guinea pigs is transmitted from one generation to the other regardless of the medium upon which the germ is grown. Those are simple facts that are demonstrable. They have no reasonable relation whatever to anybody's faith in the world, and the two subjects ought to be kept separate. When we discuss biology or discuss evolution particularly, it is a vast mistake to take for that subject the animal whose life is as long as the investigator's, and expect to discover something that takes hundreds of thousands of generations to produce a perceptible impression. It really leads us to have to swallow too much history at once.

Another thing: When Dr. Douglass began to produce such a sad picture of man, I felt that it was undoubtedly true. When he said the appendix was slated for elimination and the colon due for a startling reduction in length, I felt that the whole man might soon follow these organs. The point I want to stress in discussing evolution is, we are discussing a scientific subject, and we ought not discuss only that side of it. Dr. Douglass in his paper simply makes the announcement before a medical society in session; but if simple utterance is given out in the hope of in some measure counteracting the large noise that is going around all over the country, Dr. Douglass can not hope to even stifle the faintest echo of that sound that fills the atmosphere. (Applause.)

Dr. D. C. Walt (Little Rock): This paper is well worth considering. We have the right to ask an honest question and expect an honest answer.

Every man and woman in the world is abnormal to the degree that is only made possible by ignorance. Vividly expressed in insanity, necessity for operations and criminality. I am not a scientist from the point of chemistry or laboratory work; but from the point of reasoning from cause to effect within the limitation of common sense, I know there is something radically wrong in the management of human life that depends largely upon our education.

If what we thought made things true, everybody could think differently and have the truth; but the facts remain regardless of what we think.

Natural law operates by conditions, expressing neither love, mercy, pity or hate. Civilized law operates by intelligence that embraces love, mercy, pity and hate. The divine law operates owing to the conception of each individual.

Under the management of the world no one dies a natural death. Every life is a tragedy.

Dr. Herbert Lanier (Texarkana): I want to know if there is some place in Mr. Bryan's book where he thinks that those people who believe in evolution accept the old theory that somewhere in the process of evolution this evolved man suddenly became possessed of a soul. Certainly, if he started according to some theory of science, as one of the lower animals, he could not have started with a soul. If we are going to mix religion with this subject, which is purely scientific and I think should not be considered at all in the light in which Mr. Bryan treats it, I should like to know what his views are concerning it. I have not had the pleasure of reading his book. I believe in evolution. It was my pleasure a few years ago to be in the museum of the Royal College of Surgeons. I saw a number of little bronze plates which said, "Huxley sat here," "Spencer sat here," "Darwin sat here," "Drummond sat here," and worked out their theories of evolution in the ascent and descent of man. When one goes through those immense corridors where 22,000 skulls are kept, not only of people who have died in this age, but even in medieval and prehistoric times, and sees the changes in the configuration of the skulls that has taken place as people have advanced in civilization, one would be inclined to believe very much in evolution. But, certainly we don't believe that at some stage in evolution man became suddenly possessed of a soul. (Applause.)

Dr. Frank B. Young (Gering, Neb.): I object to the denomination of "Evolution" as "Darwinism." Darwinism is not the whole of evolution, by any manner of means. Darwinism is just one phase of the fact of evolution. No scientifically educated person in this day denies the fact of evolution, and it is a waste of time, to a certain extent, to discuss it because you can not convince a man of the type of Mr. Bryan who doesn't want to be convinced. Facts do not convince him either politically or scientifically.

A paper dealing with evolution of the human race from a different standpoint entirely would be of great value to this or any other medical society. A great many of our congenital troubles are due to imperfect personal evolution. It is a fact as laid down by Haeckel that the development of the individual follows the line of the development of the human race. If you go back and study some points of evolution you will find certain portions of the human anatomy are the relics of a certain stage in racial development. The appendix is the vestigial relic of a rudimentary organ that exists in the lower animals and is quite active in the digestive functions. It is only good now for the surgeon. Various deformities of the mouth and other orifices of the body are all relics of previous ages carried through the embryology. Now, a paper dealing with evolution from that point of view is of value to a medical society. A paper dealing with the theological side of evolution has, I believe, as Dr. Thibault says, no reason for being presented in a scientific organization. It might be presented to a lot of ministers or to some one of that kind; but it really has no place here. I hope that Dr. Douglass will pardon my criticism of his paper.

There is one more point. At Agate Springs Ranch in Nebraska, a few years ago, human fossils were found. They have been studied very carefully by the University of Colorado scientists and by the scientists of the New York Museum, the American Museum of Natural History and other museums. A few days ago there was announced the finding of human remains among the remains of the five-toed horse, the saber-toothed tiger and the smaller fossil animals probably 300,000 years old.

Dr. J. H. Benefield (Huntington): I can not refrain from saying a few words on this subject. I

am not a biologist, neither do I claim the honor of being a scientist. But, one of the greatest surgeons in the world a few months ago said, in my presence, when opening his remarks on the subject that he was attempting to discuss, "Gentlemen, I have had so many opinions in my life and I have abandoned so many of them that I am sure that you haven't got very much respect for my opinions any more, and I am quite sure that I have not." Now, gentlemen, I am going to say to you that I have no respect whatever for a theory that is purely theory, that is purely imaginary, the fundamentals of which can not be brought out and linked up in detail in such a way that I can see the chain of evidence. Especially when that theory attacks the "Theology of the Bible" in many respects and especially the theology of the origin of man. If I am to support a theory that I have degenerated or ascended from the monkey, I want proof of it. (Applause.)

Dr. Douglass could have said another thing that he didn't say in reference to the Darwin theory. I think Darwin first started out talking about the frog as a beginner. All of you who have plowed around the country springs as I have, no doubt, have found a great deal of interest in watching the little wiggletails beginning to flop around in the water, and later beginning to be a tadpole. In the tadpole stage, he has nothing but a head and tail. But eventually he has four limbs and begins to develop, and as he begins to shape up into a little different shape, he loses his candal appendage by some process of automatic amputation and he becomes a frog that hops about and is a different looking animal. But man is unchanged in appearance, so far as facts are proven. I think that Mr. Darwin said something in the beginning of his theories to the effect that we possibly started lower than the monkey.

But, gentlemen, that is not what I started to say. Here is what I started to say: Way back when this world was laid out in one cosmic waste, when God himself saw it was void and that darkness covered the world, He said, "Let there be light," and there was light, and perfect order sprang out of chaos. Then at another period that same God that you and I look to for our salvation hereafter, said, "Let us make man. Let us make him in our image." Gentlemen, I don't believe that the good God of the Universe looked like a monkey. (Applause.) I don't believe that he ever looked like a tadpole either, nor any other vertebrate that has been discussed on this subject tonight. He said, "Let us make man in our image"—in the image of the Deity. Then when he made him he said, "Let us breathe into him the breath of life," and he became a living soul. He did not create a tadpole or a monkey or any specie of vertebrate and then have to wait thousands of years to evolve into man. No, He called him man, not any other name or thing.

I think that the human species has been always a higher stratum than the low vertebrates, the helpless animals that played and flopped around and flounched about and even swung by their tail in the forests. I believe that sincerely. (Applause.)

I feel just at this stage like the old fellow felt once at a funeral. A certain trifling fellow had died in the community. There was a certain preacher that could say something good about everybody. So they imported this preacher to preach the funeral sermon. He was giving his discourse, telling the good qualities of this man and his wonderful achievements. After a while, an old man got up and stroked his beard and walked up and looked into that coffin, and he kept looking. Directly the minister said, "Brother, just sit down. We will have the coffin opened after a while, and we will all take a last look. You can see

him then." "I am not interested especially about seeing the corpse," said he, "but I was just wondering if you are not burying the wrong man." (Laughter and applause.)

Dr. Thos. Douglass (in response): I appreciate very much Dr. Clegg's discussion of this subject. Dr. Thibault and Dr. Young both object that I have introduced a theological question into it. The theologians started the fuss, I did not. All I insist upon is that they must give the subject a square deal, which they do not. They want it excluded from the public schools. They do not want it taught to the school children. I say that you cannot separate science and religion. That is what science has been trying to do and the church will not let it be done. It is an impossibility. They both deal with the most vital concerns of the human race, and must be considered together.

Dr. Walt and Dr. Benefield each says he is not a scientist. Now, the medical man, if he is worth anything, is something of a scientist, and ought to know something of this subject. It is of the utmost vital importance. We do not know half enough about the origin of man—of the beginning of life. Some day we shall know these things. Life is beginning right before our eyes every day.

I do not oppose anybody's religion. I am a religious man myself and belong to the Methodist Church. But I do object to the religion that tries to destroy a scientific hypothesis. I do not care whether anybody accepts Darwinism or not. You may reject it if you want to. (Applause.)

Dr. R. C. Dorr (Batesville): When does science cease to be science?

Dr. Douglass: When it becomes nonsense, of course.

Dr. Dorr: When it doesn't tell the truth. Do you know that all these things you have said are true?

Dr. Douglass: They are true so far as I can see.

Dr. Dorr: But science ceases to be science when it doesn't tell the truth. When I graduated there were sixty-three elements. Now there are eighty. So, you see it is not true. You don't believe that all this stuff is absolutely true? Did you ever get any proof of it?

Dr. Douglass: Yes. As far as I can see now. We are all something of scientists, and we ought to be a good deal more scientific. The same scientific method that has been so valuable in the scientific world should be applied to religious affairs, and it is going to be, with some very certain results.

Dr. Lanier wanted to know if Mr. Bryan's book stated when a man's soul appears in the process of evolution.

Dr. Herbert Lanier (interrupting): I wanted to know why he thought that evolution affected a man in his religious life at all; why it should have any connection with religion unless it started with the lower animal and suddenly became possessed of a soul.

Dr. Douglass (resuming): I have not read Mr. Bryan's book; but have read some of his discussions in the newspapers. His objection was that Darwinism contradicts the Genesis account. I do not believe it does. I think the two harmonize. The Bible is a book of religious instruction and not a book on science. I do not take the Genesis account literally as Mr. Bryan does. I do not believe that method of interpretation should be applied to the Bible at all. The Bible is not to be taken literally. It was never so intended. The ancient Jews did not so take it. That the Bible is literally, verbally inspired is a modern theory.

We do not know when man's soul appeared. The term soul is merely a convenient distinction. There is no such thing as a soul separate and apart from the man himself. There is no such thing as mind separate from the man himself. Read James Harvey Robinson's "Mind in the Making" in which this idea is clearly demonstrated. You cannot separate a man's mind from himself, nor his soul.

Dr. Benefield says Darwin's theory is purely imaginary. I don't see how you can so regard it. As far as his objecting that God does not look like a monkey, I have seen lots of men who looked like monkeys. How are you going to get around the fact that if man is made in God's image, then these men who look like monkeys are not any farther away than the monkey?

Dr. Young said he hoped I would not be offended. You all have been so kindly in your discussion and let me off so much lighter than I expected to be let off that I am grateful for your consideration and wish to thank you very much.

AURICULAR FIBRILLATION WITH PAROXYSMAL TACHYCARDIA.

(Pulsus Irregularis Perpetuus)

S. T. Rucker, M. D.

Memphis, Tenn.

My purpose in offering this paper is to try to arouse more interest in a disturbance of the heart, that, I believe, is more common than is usually supposed, and to report a case presenting some unusual features. While auricular fibrillation is not a cardio-neurosis, it is sometimes associated with a nervous syndrome. MacKenzie, an authority on diseases of the heart, says, "60 to 70 per cent of all serious heart failures met with in practice owe their failure either directly to this condition, or have their failure aggravated by its presence, and that the great frequency of its occurrence renders it imperative that all practitioners should become familiar with its symptomatology."

Auricular fibrillation is a curious condition of the muscle fibers of the heart where the individual fibers, in place of contracting in an orderly and simultaneous manner during systole, contract rapidly and independently of one another. This causes a ventricular rate that is rapid, irregular and disorderly, and the patient is sometimes annoyed by its violent thumpings against the chest wall. The most common cause of auricular fibrillation, as shown by an analysis of 126 cases by Lewis, is rheumatism. It is also frequently associated with mitral stenosis and dropsy, and not an uncommon companion of the senile heart. Auricular fibrillation is usually recognizable by clinical observation. The pulse is usually

over 120 per minute and absolutely irregular in force, rate and volume. The irregularity of rate and force is best appreciated by stethoscope at the apex. Many patients become conscious of the heart's action when it departs from its normal rhythm. Patients liable to paroxysmal tachycardia are conscious of the attack by the feeling of a fluttering sensation in the chest, and when the attacks are due to auricular fibrillation the fluttering is interrupted by thumping sensations, due to the occasional occurrence of bigger beats. The jugular pulse is present in auricular fibrillation; but is extremely variable in different cases, and in some individuals at different times. The symptoms by which the clinical observer can most readily recognize this condition is the character of the pulse, the rhythm being irregular and disorderly. When possible the electro-cardiograph should be used to make a correct diagnosis.

Prognosis in auricular fibrillation depends upon the associated conditions, the ventricular rate, and response to treatment. The slower the ventricular rate, the better the prognosis, and when the rate can be controlled by treatment, the outlook is more favorable. In treating auricular fibrillation, rest is important. A patient with a pulse of 120, or more, should be kept in bed. It is in the treatment of auricular fibrillation that we find the great value of digitalis. It is in this condition that MacKenzie says, that digitalis acts almost as a specific. Yet, extreme caution should be observed in its administration, as harm can be done by pushing the dose too far. The rate of the pulse serves as a guide to the administration of digitalis. When the pulse becomes normal for the individual, it should be discontinued. Other drugs like strophanthin and quinidin have been used, but their action is variable and uncertain. A diversity of opinion is found in regard to the form and manner in which digitalis should be given. I follow the rule laid down by MacKenzie; that is, to push the drug steadily until reaction takes place. A slowing of the pulse to normal is a sign of sufficiency. When this stage is reached I discontinue the drug for a few days. The heart rate is carefully observed and when it shows signs of increasing a half dose is given, and the dose increased or diminished, according to how it affects the rate.

The report of the following case, referred for a nervous disturbance, presents some unusual and interesting features.

Mrs. B....., age, 40; weight, 95 pounds; married; father living at 69, in fair health; mother living at 65, in good health. Patient was considered a healthy child, and health remained good until the summer of 1915, when, while touring the West, she had a nervous disturbance. The attack lasted about five months. Her health then remained good until present trouble, which began about a year ago, with insomnia and, what she termed, spells with her heart. These spells came on mostly at night. She could go to sleep easily enough, but would be awakened in two or three hours with her heart thumping against the chest wall so violently that it would frighten her. The spells during the day were less frequent and less severe.

She came under my observation in February, 1922. Examination showed systolic blood pressure 160; ventricular rate 120 to 130, a rhythmic and rather tumultuous, and pulsating jugular of left side. The patient had an anxious expression and was worried over her heart spells. After studying her condition for some days I found the so-called heart spells were paroxysmal tachycardia, the ventricular rate going as high as 160. She was put on tincture of digitalis, fifteen drops three times per day, and increased five drops per day until thirty drops three times per day was reached, with no effect on heart rate. I changed to digitalis tablets, one three times per day for a week, still no effect. I purchased a fresh supply of tincture of digitalis, of a different make, and began with twenty drops three times a day, increasing ten drops every other day until sixty drops three times a day was reached. The pulse rate dropped to 85 in the morning and 80 in the evening. Patient felt comfortable and slept well, with no more spells with her heart. Digitalis was discontinued for two days; then resumed. Fifteen to twenty drops three times a day held the pulse from 80 to 85.

It appears rather singular that the attacks of tachycardia should come on at night when the patient was asleep; also, that the pulse was faster in the morning after a night's sleep, and slower after being up during the day. Another peculiar feature was during the attacks of tachycardia the palms of hands and feet would be wet with cold sweat. When the pulse was kept around 80 they were warm and dry. Notice again the unusually large dose, sixty drops three times a day, of digitalis it took to slow the heart rate.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

Editorials.

THE NEW COMMITTEES.

President Caldwell has appointed the following committees for the ensuing year:

Scientific Program—J. B. Dooley, Little Rock, chairman; W. T. Wootton, Hot Springs; W. R. Bathurst, Little Rock.

Scientific Exhibit—D. A. Rhinehart, Little Rock, chairman; S. J. Wolfermann, Fort Smith; J. H. Chesnutt, Hot Springs.

Medical Legislation—J. P. Runyan, Little Rock, chairman; W. F. Smith, Little Rock; S. B. Hinkle, Little Rock; E. E. Barlow, Dermott; J. B. Wharton, El Dorado; Thad Cothurn, Jonesboro; Earl H. Hunt, Clarksville; J. D. Southard, Fort Smith; R. L. Smith, Russellville; S. J. Hesterly, Prescott; E. P. McGhee, Lake Village; L. Kirby, Harrison; G. K. Stevens, Newport; E. D. McKnight, Brinkley; H. H. Parr, Eudora; Wm. Breathwit, Pine Bluff; J. A. Bogart, Forrest City; E. F. Ellis, Fayetteville.

Necrology—O. E. Jones, Newport, chairman; C. J. March, Fordyce; Geo. S. Brown, Conway; F. T. Murphy, Brinkley; W. B. Lawrence, Batesville.

Health and Public Instruction—C. W. Garrison, Little Rock, chairman; F. C. Maguire, Augusta; H. A. Ross, Arkadelphia; Robt. Caldwell, Little Rock (ex-officio); Wm. R. Bathurst, Little Rock (ex-officio).

Cancer Research—Dewell Gann, Jr., Little Rock, chairman; Wm. Breathwit, Pine Bluff; J. C. Hughes, Hoxie; J. L. Greene, Hot Springs; O. H. King, Hot Springs; Wm. R. Bathurst, Little Rock; Rufus Martin, Warren.

Infant Welfare—Morgan Smith, Little Rock, chairman; H. H. Niehuss, El Dorado; S. T. Tapscott, Jr., Searcy; A. R. Bradley, Morrilton.

Workingman's Compensation—J. M. Lemons, Pine Bluff, chairman; R. F. Darnall, Little Rock; H. N. Street, Lonoke; J. S. Moore, Arkadelphia; L. D. Reagan, Little Rock; A. W. Strauss, Little Rock; B. C. Logan, Morrilton.

Hospitals—A. C. Shipp, Little Rock, chairman; R. C. Dorr, Batesville; Jno. Stewart, Booneville; C. S. Holt, Fort Smith; R. M. Blakely, Little Rock.

Committee on Revision of Constitution and By-Laws—H. H. Rightor, Helena, chairman; W. A. Snodgrass, Little Rock; R. H. T. Mann, Texarkana; S. M. Gates, Monticello.

We would respectfully call the attention of the various chairmen of committees to their duties and, at the same time suggest that they do not delay in getting in touch with the other members and have their reports prepared for presentation on the first day of next year's annual meeting.

The Committee on Medical Legislation is larger than usual this year, chiefly because the Legislature will meet in January, and a great deal of work must be done if we are to get results.

Especially is it desirable to have the Medical Practice Act revised and improved, particularly in regard to the consolidation of all examining boards that pertain to doctors of medicine.

As pointed out in the Journal many times, the value of impressing members of the Legislature with the urgent need of such revision of the Medical Practice Act, must not be left to the committee alone. If it is left wholly to the committee to wrestle with the Legislature after it convenes, a successful issue is not assured. With the log-rolling for President of the Senate and Speaker of the House, the members who assemble a few days before the Legislature meets, are unapproachable. After the sessions begin, past experience warns us that what with the multiplicity of local and State-wide bills the members are again difficult to reach.

The work of preparing the soil in the minds of the legislators, should be shared by every member of the Arkansas Medical Society. Surely there are members in every county well acquainted with the members of both houses. The physicians should seek to impress them before the Legislature convenes, with the necessity for such legislation. If this be done, the work of the committee will be rendered far easier and a fair public hearing will be more likely to produce results.

As to this and other committees, if they desire further information they are requested to consult President Caldwell or the State Secretary.

THE INCREASE IN LONGEVITY.

In 1910 eleven years more of life were enjoyed by Americans than in 1855. This greater longevity is credited to improved living conditions during the past half century by the Statistical Bulletin of the Metropolitan Life Insurance Company of New York. In that period, and more notably in the last twenty-five years, the public health movement has developed. Take for instance Malarial Control. The elimination of the mosquito in malarial sections has not been left to local health boards entirely. The United States Public Health Service has co-operated with them and directed the work. The elimination of yellow fever also was accomplished by the United States Health Department. Serums for typhoid prevention is another example and the tuberculosis campaigns have produced wonderful results.

Cutting infant mortality in half—a reasonable possibility in view of what has been accomplished in that direction—would of itself add between three and four years to the average life expectation. The elimination of yellow fever, the decrease in typhoid and tuberculosis are other factors in the gain of years. Could tuberculosis, cancer, nephritis, and cardiac diseases be even partly conquered, another ten years might soon be added to the average longevity in addition to the eleven years gained in half a century ago or so.

The average life expectancy in 1910, according to the life tables in registration States, was fifty-one and a half years. In 1855 it was only forty and a half years. This can be accounted for partly on improved living conditions plus improved sanitary methods, disease prevention, and improved meth-

ods of treatment of disease. It is obvious that many deaths, perhaps as many as one-third, that occur annually, might be prevented, or at least postponed. Thousands of cases of incipient tuberculosis could be arrested if treated in time. The recognition of cancer in the early stages, and prompt treatment would mean the saving of other thousands of lives. The use of anti-toxin in all cases of diphtheria would reduce the number of deaths among patients and render others, exposed to the disease, immune.

In one field, however, instead of a decreased mortality, there is a steady and alarming increase. Reference is made to the inexcusable mortality from automobile accidents. In railroad, street car, steamboat and industrial accidents there has been a steady decrease, due to the adoption of safety devices and safety methods. Only in motor vehicle casualties has there been an increase and from approximately ten thousand deaths in 1920, in the registration area alone, the figures jumped to twelve thousand in 1921. Practically ninety per cent or even more than ninety per cent of these fatalities are preventable. Reckless driving in cities, plus carelessness on the part of pedestrians and the crossing of railroad tracks without heeding the warning to “stop, look, listen” are the chief causes of these twelve thousand preventable deaths.

The matter is beyond the control of the physician; but is a terrible reflection on the very sanity of the reckless and careless driver.

A CORRECTION.

Former President Charles H. Cargile takes issue with the Journal on one comment on his admirable annual address published in the last number. We said that “Dr. Cargile’s views on prohibition may not be accepted by all, nor his opinion that non-enforcement of that particular law is the cause of the widespread crime wave.” It is the last part of the comment to which Dr. Cargile objects. He thinks it exaggerates his contention. The best way is to give the former President’s exact language. After regretting that some physicians advocate the manufacture and sale of liquors, he says:

“However, with every democratic government in the world menaced by anarchy, it is most opportune to remind loyal Americans who are liquor advocates that in helping to promote the present day wet propaganda they

are unintentionally aiding enemies of our government who constitute the majority of the liquor forces. In the main the latter are thugs, ex-convicts, anarchists, I. W. W.'s, Bolsheviks, enemies of our government during the war, and members of the numerous secret organizations composed mainly of foreigners, who are ever anxious to ally themselves with anything that helps to defeat law enforcement and undermine our government."

Editorial Clippings.

MEDICAL ETHICS.

One factor distinguishing medical from other professional ethics is that medical ethics relates largely to acts immediately affecting the lives and health of human beings, and not to merely abstract principles. This distinction has been recognized, since the days of Hammurabi, in all statements of principles, or so-called codes, of medical ethics. It is interesting to note, too, the permanence of the statements of ethical principles governing specifically the acts of physicians, as formally approved by the American Medical Association, since the adoption of the "Code of Ethics," at the first annual session of the association, in 1847. The code then adopted continued in effect until 1903, when, at the New Orleans session, it was superseded by a new statement there adopted, and the title changed from "Code" to "Principles" of medical ethics; but even then only minor modifications were made, the most important being the omission of the chapter defining the relationship which the public and the patient should hold to the practitioner of medicine. In 1912, the statement of the "Principles of Ethics" was revised, but the changes were hardly more than changes in phraseology. New conditions, however, have recently developed in the practice of medicine, and group and institutional practice have loomed up as elements to be reckoned with. Many physicians, it is to be feared, have quite unconsciously tolerated on the part of groups and institutions with which they are connected acts which they would not for a moment have considered if they had felt that they individually were responsible for them. It has always been recognized, for instance, that "solicitation of patients" is unprofessional, and that a physician can not ethically engage in such solicitation. Justice and fairness de-

mand that the practice be not indulged in by physicians through groups or institutions with which they may be connected, any more than it would be indulged in by such physicians acting in their individual capacities. These considerations led the House of Delegates at the last annual session in St. Louis to incorporate in the "Principles of Ethics" the following, so that there might be no doubt as to the duty of groups and institutions or of the physicians connected with them:

Sec. 4. Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class, if any, of patients accommodated.

As may be noted, it is recognized that "institutions" which provide means for treating the sick and which have certain physical attributes which can properly be announced may call attention to these facilities. But groups of physicians associated for any reason, in group clinics or other institutions, should conform to the restrictions governing the individual physician. For professional and quasi-professional acts committed by such groups or institutions, the physicians connected therewith must hold themselves accountable.—*Jour. A. M. A.*, July 8, 1922.

EVOLUTION AND RELIGION.

The papers are having a good deal to say about Mr. Bryan's controversy.

I do not know if you will think *we* descended from the monkey or not!

Prof. O. W. Warmingham, of Boston University, has delivered a lecture on the subject and says, "I do not believe that you will find a scientific book that says man, as we know him today, had apes as his ancestors. Man has descended from anthropoid ancestors, but not from monkeys."

As far as I can see I do not know that there is a great deal of difference or distinction or extinction. Anthropoid man was simply primitive man. "Simply" being used advisedly—on advice of counsel.

The process of evolution (still going on) has changed man from "primitive man" to—a doctor, or other specimen of the genus homo.

Primitive man dropped gravy on his fur chest, while modern man drops gravy on his vest—a difference of only one or two letters, but yet quite an advance.

Take the whale—he originally lived on the land. He kept flirting on the seashore and playing in the water until his forelegs developed into fins. His hind legs gradually lost their significance, until he has only two short apparently useless protuberances.

(Now, man may go back to the water! I see by the papers that at Dallas, Texas, men and women are not required to wear bathing suits.)

Scientists tell us that not many years ago man had museles which allowed him to wiggle his ears. But from years of wearing the hair over them those museles became useless.

Now the tongue is different!

Prof. Warmingham said that “If the human race became so foolish as to adopt motor transportation entirely they would in time be unable to use their legs.”

“This,” said he, “is what is meant by evolution. A gradual change in physical or mental appearance to conform to a natural or artificial environment. It is not a change, either gradual or startling, from one species to another.”

Prof. Warmingham laughs at Mr. Bryan’s idea and belief that the theory of evolution would destroy religion, for, he says, “Evolution has nothing to do with religion. It is a biological question admitted by scientists. Evolution takes place, it is believed, in every form of animal life. Religion is applied only to humans with a mind.”

“The great mistake made by Mr. Bryan is that he believes the first chapter of Genesis gives a detailed account of the creation. Any one who believes that is liable to get into trouble. I believe it is only a brief summary of the facts.” He thinks there are many things about it we do not understand, but that people can still believe the Bible literally and at the same time accept the theory of evolution. Neither one has any connection with monkeys, or any other form of life except the human. —*The Medical World*, August, 1922.

Abstracts.

TRAINING IN SOCIOLOGY AND PUBLIC HEALTH AN ESSENTIAL IN MEDICAL EDUCATION.

S. W. Weleh, Montgomery, Ala. (*Journal A. M. A.*, July 29, 1922), suggests five essentials which should be made a part of a student’s medical education: (1) He needs to have a sympathetic understanding of the fundamental human problems in relation to the many complexities of modern life, and must become familiar with the trend of the best thinking along social lines. (2) He needs to know the place and function of sanitation in relation to the public welfare, the how and when and why of environmental influence on health. (3) He needs to be well grounded in the control of the communicable diseases and in bacteriology. (4) It is imperative that he should have a knowledge of hygiene, especially in its relation to the social and medical sciences which attempt to improve the race by approximating a solution of the basic problems of human existence; that is, the problems associated with the necessity for food, shelter, defense and propagation. (5) He needs to have a knowledge of psychology in its relation to conduct, with regard both to individuals and to groups, in order that he may truly educate both individuals and groups in right habits of action, by supplying motives which appeal to them.

A CASE OF TUBERCULOSIS ENTERITIS TREATED BY INTRA-PERITONEAL INJECTIONS OF OXYGEN.

John L. Jelks, M. D., F. A. C. S.
Memphis, Tenn.

The writer reported this case and the result of treatment because of the apparent hopeless condition, the little post-operative discomfort occasioned, and the immediate improvement and rapid cure from two injections; and also because the treatment and result are both contrary to the ideas conveyed by laboratory study of the tubercle bacillus. The free fluid was first withdrawn through a canula which was fixed by a purse string suture. The quantity of oxygen was measured only by the tolerance of the patient, as indicated by no undue embarrassment of respiration. The incisions down to the peritoneum were made in each treatment under novocain analgesia with-

out pain. The patient felt a sense of well-being and buoyancy, the diarrhoea, which had amounted to five to thirty dejections daily was immediately controlled, the temperature became normal, and even the lung lesions rapidly cleared; and the woman is now reported by the internist and the attending physicians of the sanitarium for tuberculosis as entirely well. Whether the results were obtained by stimulation of the endothelium with oxygen, by increase of antibodies in the supersaturated blood and tissues, or by direct effect on the tubercles, the writer offered as suggestion and food for thought.

THE NEEDS AND DUTIES OF DERMATOLOGY.

The duty of dermatology to the profession, Ernest Dwight Chipman, San Francisco (Jour. A. M. A., Aug. 5, 1922) says, is co-operation. Dermatologists owe it to the profession to make known in plain terms the significance of dermatologic lesions as they interpret them. They need to write for the man in general practice as well as for their confreres in dermatology. They need to make of dermatology a clearing house for the subject of syphilis. The teaching and treatment of this disease is today, as in former times, an integral part of dermatology. Before the development of the Wassermann test, there was never doubt as to the destination of a syphilitic patient. Because of the training of dermatologists in the recognition of the objective signs of the disease, the matter was by common consent left in their hands. Today, syphilis is diagnosed in the laboratory and is treated by any or by all. It is the dermatologist's duty to demonstrate such proficiency in respect to this disease that the profession at large will willingly regard it as belonging to dermatology.

USE OF FISH IN MALARIA CONTROL.

In malaria control, as well as in operations against yellow fever, fish are now playing a most important role.

"In the Southern States fish are being extensively used to control the breeding of the malaria mosquito. In practically all the towns in which there have been demonstrations of malaria control by anti-mosquito measures during 1920 and 1921, they have been an important auxiliary to drainage and oiling and in many instances the chief or even sole reliance.

"In a group of five counties in Alabama practically every farmer has convenient access to a minnow hatchery from which he is able to stock breeding places with fish as occasion arises. The city of Richmond, Virginia, has stocked all its fountains, reservoirs, and lakes with top minnows, and has established hatcheries to furnish the fish free of charge to any communities in the State that want them."

Personal and News Items.

Dr. and Mrs. W. T. Wootton of Hot Springs visited in Little Rock this month.

Dr. and Mrs. Stanley M. Gates of Monticello have returned from New Orleans.

Dr. J. H. Stidham of Hope visited friends in Hoxie and Little Rock this month.

Dr. and Mrs. J. L. Jones of Searcy motored to Little Rock this month.

Dr. E. R. King, Wickes, has moved to Alikehi, Okla.

Dr. R. T. Harrod, Walworth Park, Texas, has moved to Grand Prairie, Texas.

Dr. R. R. McHenry, Rogers, has moved to Seligman, Mo.

Dr. L. Gardner, Russellville, is associated with St. John's Hospital and Holt Clinic, Fort Smith, department, eye, ear, nose and throat. Dr. Joe E. Heard, who recently finished his Fellowship with the Mayo Clinic, joins the clinic as surgeon and diagnostician.

HOT SPRINGS MEDICAL MEETING.

The crowning feature of the joint annual meetings of the Medical Association of the Southwest and the Tri-State Society at Hot Springs, Ark., October 16, 17, 18, will be three clinics which will be most profitable and well worth making the trip for, even if there were not other helpful scientific matters for discussion.

Dr. W. T. Wootton of Hot Springs, chairman of the general committee, announces that the mornings will be given over to the clinics, the afternoons to scientific papers and the evenings to get-together meetings of the various college alumni and the usual social features. The Eastman Hotel will be headquar-

ters; registration, exhibits and sessions all held under one roof.

The clinics will be conducted by authorities of nation-wide fame and this meeting, if the plans of the committee carry, will no doubt go down in the history of each society as its most successful meeting.

The clinics: Heart and Blood Vessels—Kidney Diseases of Every Form; Neuro-Syphilis; Arthritis and all Forms of Joint Infections.

Dr. St. Cloud Cooper of Fort Smith, Ark., is president of the Southwest Association and Dr. Charles A. Smith of Texarkana, Ark., is president of the Tri-State Society.

MEDICAL SOCIETY CALENDAR.

FALL MEETINGS.

American Academy of Ophthalmology and Oto-rhinolaryngology, Minneapolis, September 19-23.

American Electrotherapeutic Association, New York City, September 19-22.

Mississippi Valley Medical Association, Rochester, Minn., October 10-12.

Medical Society of the Missouri Valley, St. Joseph, Missouri, September 21-22.

Medical Association of the Southwest, Hot Springs, Arkansas, October 16-17-18.

Tri-State Medical Society, Hot Springs, Arkansas, October 16-17-18.

American Association of Railway Surgeons, Chicago, October 18-20.

Southern Medical Association, Chattanooga, Tennessee, November 13-16.

Western Surgical Association, Minneapolis, December 8-9.

MORE MISBRANDED NOSTRUMS.

The following have been the subject of prosecution by the federal authorities charged with the enforcement of the Food and Drugs Act:

Ammonol Tablets (Ammonol Chemical Co.), containing acetanilid, ammonium carbonate, sodium bicarbonate and sodium phosphate.

Johnson's Female Regulator (Logan Pharmacal Co. and the France and New York Medicine Co.), consisting of pills containing extracts of vegetable drugs.

Fosfo-Ferrogen De Johnson, containing caffeine and compounds of iron, quinine, strychnine, arsenic and calcium.

Obituary.

DR. M. C. HUGHEY—Dr. Moses Cline Hughey of Marianna, died May 28, 1922; aged 44. Dr. Hughey was born at Hiram, Mo., October 8, 1877.

He was always a friend of organized medicine, and held prominent positions both in his local and State societies.

DR. CHAS. SANFORD—Dr. Chas. Sanford, of Board Camp, died July 27, 1922. Age 63.

DR. C. M. ROBERTS—Dr. Charles M. Roberts, of Hot Springs, died August 4, 1922. Aged 56. He was born at Gallatin, Tenn., and was a graduate of Vanderbilt University, School of Medicine, and came to Hot Springs twenty-two years ago. He leaves a wife, one brother and one sister.

County Societies.

LAWRENCE COUNTY.

(Reported by A. J. Clay, Sec.)

The Lawrence County Medical Society met in regular session August 2, 1922, at the office of Dr. Land, Walnut Ridge. W. W. Hatcher, president, called the meeting to order.

Clinical Cases: Parotiditis; Calculus of Sublingual Duct; Infection of Skene's Glands; Hypopyon.

H. R. McCarroll reported a case of hypopyon, with surgical treatment and cure.

J. H. Stidham of Hope gave a short talk on "When and What Anesthetics are Best to Use in the Eye."

The essayist of the afternoon was A. G. Henderson, who read a very interesting paper entitled, "Increased Mortality Past Middle Ages." Laying special stress on the doctor who ate and drank too much, thereby shortening his life.

Thad Cothern of Jonesboro gave a short talk on "The Progress of Our Profession," emphasizing especially the importance of doctors working in harmony, and giving the public the necessary medical information.

A motion was made and seconded to meet with the Randolph County Medical Society, September 6, 1922, from 2:00 to 6:00 p. m. at the "Old River Outing Club." A fish supper will be served at 6:00 p. m.

J. C. Land and J. C. Swindle were appointed a committee to procure the grounds and the refreshments.

Today's meeting was the best one of the year, with practically all members present. We are proud to state that the Lawrence County Medical Society is progressing nicely and that the "old-time grudge" does not exist in our county.

Present: Allen, Ball, Clay, Guthrie, Hatcher, Henderson, Land, McCarroll, Neece, Robinson, Swindle, Townsend and Warren. Visitors, J. H. Stidham, Hope, and Thad Cothern, Jonesboro.

Book Reviews.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued Serially, one number every other month). Volume V, No. 5, March, 1922. By Boston Internists. Octavo of 335 pages, with 62 illustrations. Per clinic year (July, 1921, to May, 1922). Paper, \$12.00 net; Cloth, \$16.00 net. W. B. Saunders, Philadelphia.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued Serially, one number every other month). Volume V, Number 6, May, 1922. By Chicago Internists. Octavo 308 pages and index to Volume V, complete with 22 illustrations. Per clinic year (July, 1921, to May, 1922). Paper \$12.00; Cloth \$16.00 net. W. B. Saunders, Philadelphia.

This number is represented by a number of clinics in Chicago, Dr. Ralph C. Hamill's Clinic, Northwestern University Medical School, presents two cases of hysteria. Illustrating a phase of hysteria not frequently spoken of, namely, the tendency for symptoms that may have some organic basis to persist after the organic basis has disappeared. He discusses the symptoms and physical signs in each case, and the treatment employed.

Among the interesting contributions in this number we wish to make mention of the instructive article by Dr. Henry A. Christian, on "Digitalis Effects in Chronic Cardiac Cases with Regular Rhythm in Contrast to Auricular Fibrillation." Dr. Christian's views with regard to digitalis is that digitalis, as a rule, has a striking effect on those changes in the patient which are brought about by cardiac insufficiency, and this effect appears irrespective of whether or not the pulse is irregular.

THE SURGICAL CLINICS OF NORTH AMERICA (Issued Serially, one number every other month). Volume II, Number 1 (The Philadelphia Number), 331 pages, with 145 illustrations. Per clinic year (February, 1922, to December, 1922). Paper, \$12.00 net; Cloth, \$16.00 net. W. B. Saunders, Philadelphia.

This issue is represented by Philadelphia Clinics with the following physicians: John

B. Deaver, J. Chalmers DaCosta, Astley P. C. Ashhurst, Charles H. Frazier, Brooke M. Auspach, George P. Muller, John H. Jopson, Warren B. Davis, John Speese, Damon B. Pfeiffer, P. G. Skillern, Jr., Floyd E. Keene, Geo. M. Dorrance, J. W. Bransfield, John F. X. Jones, Edmund B. Piper, and J. Stewart Rodman.

THE SURGICAL CLINICS OF NORTH AMERICA (Issued Serially, one number every other month). Volume II, Number 2 (San Francisco Number), 259 pages, with 112 illustrations. Per clinic year (February, 1922, to December, 1922). Paper, \$12.00 net; Cloth, \$16.00 net. W. B. Saunders Company, Philadelphia.

Sixteen clinics are shown in this issue. Dr. Homer Woolsey's clinic deals with "Traumatic Fracture of Mandible," in which the important points illustrated by the case presented are: the need of eradication of infection and improvement of circulation in scar tissue, accomplished by physiotherapy; location of the best type of bone with the desired contour for grafting a large defect in the jaw; ease of obtaining the graft; the least incapacitation of the patient; and the increased area for bony union on the sides of the mandible, which means, in turn, added strength.

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NEW ORLEANS

The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

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OF THE

COUNTY SOCIETIES OF THE ARKANSAS MEDICAL SOCIETY

1922

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Original Articles.

"HAS CAUTERY LOST OR GAINED GROUND, IN TREATING CANCER IN THE DIFFERENT PARTS OF THE HUMAN BODY.' '*

R. C. Dorr, M. D., F. A. C. S., Batesville.

In studying this question I have found that cautery is not only gaining ground in treating malignancy, but many other pathological diseases; as the following abstracts from papers written by D. C. Balfour, M. D., of Rochester, Minn., and J. F. Percy, M. D., F. A. C. S., of San Diego, Calif., will show:

GASTRO-INTESTINAL TRACT.

Balfour, D. C.: The Use of the Actual Cautery in Treating Benign Lesions of the Stomach and Duodenum. (This abstract was taken from the March, 1922, number of the Journal of Surgery, Gynecology and Obstetrics.)

For centuries the cautery has been used as a haemostatic, sterilizer, and counter-irritant, and it is one of the few therapeutic agents of antiquity that has endured to modern times. Heat not only destroys malignant cells, but does so without devitalizing healthy tissue.

In the Mayo Clinic the cautery has been used routinely in many conditions. It is applied to the edges of the stomach and intestine after removal of malignant growths; to malignant neoplasms of the bladder; in the treatment of the mouth, tongue and jaws; and to epitheliomata of the skin. In non-malignant inflammatory conditions and in intractable infections of the skin cauterization may bring about healing when all other methods have failed.

Cauterization has become the most frequently employed procedure in the Mayo

Clinic in the surgical management of gastric ulcer and certain types of duodenal ulcer. In a series of 437 gastric ulcers treated with the cautery the mortality rate was less than half the average rate of all other types of operations for gastric ulcer in the clinic. At least 80 per cent of the patients have been afforded relief from symptoms, and the subsequent death rate has been considerably lower than the average death rate following all other operations. This is especially significant since it is due, at least to some extent, to the specific destructive action of heat on the cancer cell. The outstanding facts in cautery excision and gastro-enterostomy for ulcer of the stomach are the low operative mortality, the absence of post-operative morbidity, the high percentage of satisfactory symptomatic results, and the low incidence of late sequelae. The cautery is particularly effective in destroying the bleeding type of ulcer, both gastric and duodenal, and decreasing the frequency of subsequent gastric hemorrhage.

It is most applicable to the small ulcer involving the lesser curvature. In ulcers of the posterior wall of the stomach the cautery is used for a transgastric excision or for cauterization of the edges of the opening in the stomach after it has been separated from the pancreas.

The technique consists essentially in thorough cauterization of the actual ulcer after opening the stomach over it with the cautery. The surrounding tissue may be heated without increasing the size of the opening, and the selective action of heat utilized on any actual or potential cancer cell. Since the vulnerability of the cancer cell to heat is five times as great as that of the normal cell, this method possesses distinct advantages in the treatment of the few ulcers in which early malignant degeneration has taken place. The opening of the cautery excision is considerably smaller than that of knife excision of the entire indurated area. The induration dis-

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appears when the central point of infection is destroyed. There is no active hemorrhage when cauterization is carried out slowly. The opening is closed with interrupted chromic catgut, a flap of gastrohepatic omentum is sutured to the wall of the stomach to protect the site of the closure, and a gastro-enterostomy is done.

In duodenal ulcers a puncture is necessary because the actual lesion is clearly in view and the ulcer crater usually small. So far, the cautery has been used chiefly for the bleeding type of ulcer of the duodenum; that is, the ulcer with a history of gastric or gastro-intestinal hemorrhages. The perforation of such an ulcer with the cautery in addition to the routine gastro-enterostomy has apparently prevented the danger of subsequent hemorrhage.

A NEW AND ADVANCED SURGICAL TREATMENT FOR BREAST CANCER.

By J. F. Percy, M. D., F. A. C. S., San Diego, Calif. (This abstract was taken from the October, 1921, number of the Journal of Surgery, Gynecology and Obstetrics.)

Within the year the statement has been published that the limit has been reached as regards improvement in surgical technique in removal of carcinoma of the breast, and that because of this nothing further can be hoped for in the way of bettering the statistics of breast operations for cancer. In this paper I want to add six new and additional factors in the technique of breast operations, that will, I am sure, improve very materially the present day statistics of this operation.

First, that only the hot knife be used in the removal of breast carcinoma, including a complete dissection of the axilla.

Second, that in the advanced type of case no attempt be made to preserve or secure skin flaps.

Third, that the skin around the denuded area (left without flaps when the breast and axillary glands are removed) be undermined from two to four inches with the hot knife.

Fourth, that in the after-treatment, besides the use of Dakin's solution, the arm on the operated side be maintained in an elevated position with the forearm resting on the top of the head, until practically the surface denuded by the hot knife is entirely covered with new skin.

Fifth, that vigorous, daily massage and forcible movement of the skin and arm ad-

jacent to the denuded area be instituted as soon as granulations have commenced to appear.

Sixth, that the only carcinoma of the breast considered inoperable by the heat technique is the one where inaccessible metastasis has developed.

Rodman, in his book on Cancer of the Breast, makes the statement that if the cases are seen early the modern operation with the cold steel knife, in trained hands, should give a 50 per cent immunity from return, local or general, for a period of five years or over. My experience, however, based on my own work, would indicate that these statistics are possibly misleading, in that they are too favorable as to recurrences. I see a rather large number of recurring breast carcinomata which come with the hope that their second operation may be successful if done with the cautery knife.

It is not necessary to discuss the need for improving our operative results in the treatment of cancer, breast or otherwise. The efforts made by surgeons in the past to prevent local recurrences following operations for this disease are a most fascinating chapter in the progress of the surgical art. The outstanding thing has been the constantly increasing endeavor to cut wide of the disease.

It is no part of this paper to dwell on the question of diagnosis, except to urge that an x-ray of the thorax be taken in every case. This is especially important if the breast is fixed to the chest wall. But I want to emphasize here that fixation alone is no contra-indication with reference to the possibility of obtaining a successful result by a cautery knife dissection and amputation of the breast.

If the cancer in its progress has not already upset vital physiological functions in the patient to a degree to make any treatment palpably hopeless, she should be given the benefit of a cautery knife surgery, regardless of how extensive the primary mass of cancer itself has become.

The condition of the inoperable case of cancer is so desperate that its consideration from the standpoint of treatment places it outside the realm where ordinary surgical judgment can rule or guide us. It is in this class of cases that the cautery knife often gives the most beneficent results. The outstanding fact regarding cancer everywhere in the body is its vicious tendency to easy dissemination. Were

it not for this supreme fact the cancer question would be robbed of its chief importance. Scalpel surgery does nothing to circumvent this easy characteristic of the disease. This applies practically as far as cold surgery is concerned to the early as well as to the late case.

The unheated knife does not devitalize any of the malignancy it does not remove. The hot knife does. The cold knife does not spoil the soil for the further development of cancer. The hot knife does. The knife unfortified with heat, if it touches cancer, vaccinates it into new areas. The hot knife does not. The cold knife stimulates the growth of the unremoved cancer cells. With the hot knife this is impossible.

The too frequent recurrence of cancer after the use of the cold knife, especially in the field of operation, has disheartened both the public and the profession as to the ability of surgeons to do much that is worth while to circumvent it.

The actual technique of the use of the hot knife in cancer has for its main purpose the wide removal of the proximate lymphatics with their load of malignant cells, and the destruction of the distant ones by the dissemination of the heat as far as it is possible to make it go through the apparently uninvolved tissues. With this technique it is necessary to distinguish two degrees of development in the growth of breast cancer; *i. e.*, the early and the late, and to apply the method suited to the individual case.

The early type of growth is characterized by the small mass which is neither adherent to the skin or thoracic wall and in which there are no definitely enlarged axillary glands.

The advanced breast carcinoma is one where the mass is large, usually breaking down and adherent to the skin, chest wall, or both, and in which the axilla may show any degree of involvement from small glands to large secondary tumors. In the first or early type the operation is less radical only in that the removal of the skin with the gland is not so extensive. But, as in the advanced type of operation, the line of the skin incision is always well away from the breast, indeed, on the basis of safety we are really never justified not only in not using any of the skin over or near the tumor, but in retaining any of the skin for the purpose of flaps over the gland itself. If, however, the surgeon is willing to risk retaining some of this overlying

breast tissue it should be dissected free from the gland with the knife cautery in such a way that the skin flap retains none of the gland tissue. More than this, these skin flaps should be infiltrated with the heat to a degree certain to make them also free of viable cancer cells. The reason for this is that the breast glandular tissue comes very close to the cutaneous structures, and when it is known that some part of its structure harbors cancer cells its limits should not be left to chance.

In the second or advanced type the line of the skin incision and excision with the hot knife extends a half inch below the cephalic vein on the upper and front part of the shoulder, inward above the axilla, continuing toward the sternum about an inch below the clavicle. From the junction of the inner third with the outer two-thirds of the clavicle the incision extends downward near the costosternal margin to within two or three inches of the umbilicus. From this point the incision is made to extend outward and upward along the costal margin to the posterior axillary line and back to the starting point. It should be stated that this incision is first outlined with the tip of the cautery knife on the iodine covered skin. After this the hot knife is thrust under the skin and is made to open this line completely from the neck to the umbilicus down to the ribs, intercostal muscles, and fascia. This at once seals the efferent lymphatics and vessels against the dissemination of the cancer cells as far as it relates to the periphery of the excised area. The dissection is then started in the axilla by exposing first the insertion of both pectoral muscles. These are severed with the cautery. From this point the technique is as if the scalpel were being used in place of the cautery knife. The branches of the axillary and subclavian vessels are cut with the hot knife and then these vessel stumps are ligated with number one plain catgut. The brachial plexus is well exposed in order to clear away the gland-bearing fascia under and behind it, and as well to get the cautery heat well up in the apex of the axilla. Thus cancer cells utterly beyond any other possible surgical treatment are destroyed, and the soil for their redevelopment taken away.

My object in writing this paper is to emphasize the fact that cautery should be given the FIRST place in treating malignancy, in-

stead of the LAST—where it is practical to do so.

The advocates of x-ray and radium are using larger dosage. What for? So as to get more positive results from the first treatment.

The cautery thoroughly applied, produces practical results much more quickly than x-ray, radium, or the knife, and penetrates much farther than the knife.

I will briefly report a case, that was treated with the cautery two years ago this month:

At that time she weighed 94 pounds. She now weighs 140 pounds. She had had uterine hemorrhages off and on for several years. She had been curetted two or three times for it. The uterus was fixed. This case was diagnosed by a pathologist.

I have a number of other cases that are doing as well as this one.

If the late claims for the x-ray, for treating internal malignancy, are proven to be true, it will be given the first place in treatment of these cases.

DISCUSSION.

Dr. H. H. Kirby (Little Rock): To my mind the cautery is naturally the most logical way to deal with malignancy; because, as the doctor has stated, it reaches out beyond the actual point of incision of the tissues through which you are cutting. As has been indicated, it will destroy the cells to a degree for a distance of a half to three-quarters of an inch, at least.

As to the radical phases of incision that have been advocated in this paper, I can hardly agree with that; because I think, if the malignancy has extended that far, it has gotten well beyond the stage of operative procedure and I believe that a person would do better to leave it alone.

The paper is very interesting, and the question of heat in cancers is sooner or later to be the real method of treatment, unless it is superseded by X-ray or radium.

TREATMENT OF CARBUNCLE.*

A. U. Williams, M. D., Hot Springs.

I am not going to weary you with a long description as to the etiology and pathology of carbuncle. You can read that in your textbooks at your leisure. A few descriptive remarks as to diagnosis and treatment.

Carbuncle is a circumscribed inflammation of the skin and deeper tissues, characterized by a dark red painful node that breaks down and evacuates through several openings.

Carbuncle is in the subcutaneous structures and works its way through the planes of connective tissue as well as to the surface, extending latterly in all directions. It is this tendency to lateral extension and the invasion of surrounding tissue, its larger size and multiplicity of the points of suppuration which distinguish it from the boil.

A dark red painful flattened node appears, surrounded by a dusky red area of induration. At first it is hard to differentiate whether you have a boil or a carbuncle to contend with. In a week or ten days suppuration begins and there is a discharge through several openings. If there is marked constitutional disturbance then you may be pretty sure you have a carbuncle to deal with. A good diagnostic sign is to compress the area of inflammation gently and firmly, and if pain is somewhat or entirely relieved, you may be sure you have a carbuncle. If a boil, the pain is intensified by pressure.

The most common location of carbuncle is the back of the neck, back, thigh or buttocks; although they may occur most anywhere. It is generally believed to be caused by the infection of a bacterial germ, although so far as I know, the germ has not been classified. *Staphylococcus pyogenes aureus* and *albus* are most frequently found.

Warren explains the peculiarities of carbuncular inflammation by reference to the anatomy of the skin in regions where carbuncle is most frequently found.

I am more inclined to the theory that it is a special microbe.

If situated so it is possible to apply pressure, it should be kept up continuously by means of long adhesive strips so as to make firm pressure from all sides. Care should be used to apply the strips of plaster on all sides evenly and firmly, leaving a small opening in the center for the evacuation of pus.

Injections of carbolic acid and glycerine, it is said, will sometimes abort the carbuncle; I have never tried it. I have burned through the skin with carbolic acid and glycerine to get an early opening. As soon as I can secure an opening I pack all cavities with salicylic acid as thoroughly as possible. Enlarge the openings if necessary with carbolic acid so as to be able to get in more salicylic acid. Salicylic checks the sloughing and is death to the microbe. Cleanse and apply every day.

When you have completely checked the disease you may apply some milder dressing, such

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as boracic acid, to keep ulcer clean and promote repair.

If situated so that it is possible, strong compression should be kept up continuously by means of adhesive strips from beyond the outer edge of the invaded tissue, applied alternately from side to side so as to shut off the circulation, leaving a small space in the center for suppuration, using as long strips of plaster as possible. If sufficient compression can be properly applied, pain is relieved and further invasion of surrounding tissue is checked.

As soon as an opening occurs, or can be made, pack as much salicylic acid in all cavities as possible.

The successful treatment of carbuncle may be summed up in a few words: Apply pressure firmly and evenly; get an opening as soon as possible; pack well daily with salicylic acid, keeping up the pressure until the stage of invasion is past. As the symptoms subside, treat the ulcer locally with a general tonic and supporting treatment.

DISCUSSION.

Dr. D. C. Walt (Little Rock): I just want to thank the doctor for his paper. It seems to be a nice solution for a very disagreeable problem. I am glad to have that information.

Dr. Thos. Douglass (Ozark): I would like to know if the packing of those cavities is not somewhat painful. That is the great difficulty in handling carbuncles, the painful part of the treatment. Of course, we know they are very difficult to manage and control. It is a dangerous situation. I am very much interested in the treatment that he suggests, and I think it ought to prove effective. I know the value of salicylic acid. It is very effective, and it does have the effect of relieving pain. It may be that the packing would be less painful than I imagine.

Chairman Cargile: He said the pressure relieved it.

Dr. C. V. Scott (Little Rock): I would like to ask the doctor whether or not a sharp incision will not do just as well to make that opening. Why wouldn't that do just as well in order to get the salicylic acid in there?

Dr. E. F. Ellis (Fayetteville): I think one of the important things in the management of these cases is to take the patient off of the carbohydrates, from sugars and starches, and it will do him a lot of good.

Dr. A. C. Jordan (Pine Bluff): I enjoyed hearing the paper of Dr. Williams very much. It was excellent, concise and to the point. I have had quite an extensive experience in the treatment of carbuncles. I have treated them by various methods. I have tried the treatment recommended by most everybody that I have ever heard of. I have for years been using deep injections of carbolic acid, hoping to avoid suppuration, and in many instances I thought I had accomplished something with carbolic acid injections. Recently, I have been using injections of tincture of iodine in the indurated surface, going deep down into the tissues, and injecting the iodine around the indurated area, and I believe that I got better results from the iodine than I did from the carbolic acid. I know one thing, that, in treating with injections of

carbolic acid, it is quite painful. But with the injection of iodine, deep into the tissues, the pain is almost instantly relieved, and they don't suffer so much afterward. I am very much gratified with the cases that I have recently treated with the tincture of iodine deep into the indurated tissues.

Dr. A. U. Williams (Hot Springs): In regard to the pain that the doctor spoke of, the salicylic acid brings about a relief of pain that the doctor has failed to bring about by compression. If you apply thorough compression to the carbuncle, you have got the carbuncles headed off right then and there. If you never had one, you can not realize what a relief pressure gives. I have had one, and I know. It is much more simple to apply the pressure in some locations than in others, but if it is located so that you can put pressure on, put on plenty of it, and your patient will be much relieved.

I had a carbuncle on my shoulder when I was in the City Hospital at St. Louis. Dr. John T. Hodgen, whom many of you have read about and know, is the only man that I ever heard of at that time that used compression. He told me to put on some adhesive plaster and strap it down tight. I put on some plaster, and showed it to him the next day. He said, "That's no good! Put it on from your belly clean up and down your back behind over the shoulder."

In order to get firm pressure, don't put on a short plaster, but one just as long as the situation of the carbuncle will admit. The longer the better so as to get more firm pressure. Then you will not have any pain in the carbuncle. You have some pain in opening a carbuncle. It doesn't make any difference how you open it. I used carbolic acid. There is a little less pain than cutting; but it hurts. I have tried that too. Salicylic acid is original with me, as far as I know. I discovered accidentally that it would stop the carbuncle and clean it out better than anything I ever tried. The only question is to get the acid thoroughly applied as soon as you can, and you will have less destruction of tissue, I believe, than you would have from the iodine, or any other treatment, because salicylic acid seems to have a peculiar affinity for the carbuncle germ, whatever it may be. I think if you try that once, you will quit injecting iodine. I have never tried anything else since I found out how good and satisfactory salicylic acid is.

DIFFERENTIAL DIAGNOSIS BETWEEN APPENDICITIS AND URETERAL CALCULI WITH REPORT OF CASES.*

A. S. Buchanan, M. D., Prescott.

The diagnostic ability of the surgeon is put to the test when he is confronted with a case in which the symptoms of ureteral calculus and appendicitis co-exist. The radiograph of the urinary as well as the digestive tract will assist us in clearing up the diagnosis in a good many of these cases. It has been our practice of late years to subject all these doubtful cases of appendicitis with co-existing urinary symptoms to a thorough x-ray examination; first, of the urinary tract, and if no positive findings are obtained, then of the

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

digestive tract also. We should not overlook the possibility of an infection ascending or descending the ureter; which not infrequently gives a very sensitive tubular mass in the iliac fossa, which may be erroneously interpreted as an appendiceal abscess. In the very acute cases such an examination is not made with the x-ray and we depend upon history, physical findings, repeated microscopical examination of the urine in order that the presence or absence of blood cells, etc., may be demonstrated for the diagnosis; but when twenty-four hours waiting or even more is not important, an x-ray examination is made prior to operation. Among urologists the opinion prevails that ureteral calculi will show in the radiogram in but one out of five cases. How many of these so-called negative cases are due to appendicitis is difficult to say; but the indications of appendicitis are surely more than five times as great as that of ureteral stone. The doubt remains and it behooves the surgeon to differentiate or he may find a mistaken diagnosis.

The occurrence of concretions in the appendix lumen, the density of which will show on the x-ray plate, is not very common. They do not give a distinct shadow; nor do ureteral stones in some cases. The shadow on a single plate is misleading. Such shadows as appear to be ureteral stones are sometimes produced by warts (as in one of my cases), or by calcified retrocecal glands, and often located as deeply as the transverse process of the vertebrae. It is my understanding, however, that their presence and location can not be estimated unless viewed in stereoscopic plates.

Since gallstones, duodenal ulcers, also gastric ulcers, are concurrent with appendicitis in some 70 per cent of cases, we should examine these parts, even if we find positive evidence of appendicitis.

We have convinced ourselves upon operation of these doubtful cases that the urinary symptoms could be explained in cases of appendicitis. The adhesions, for instance, of the ureter at the point where it crosses the pelvic brim, producing symptoms which are almost positive or pathognomonic of ureteral stone. The symptoms of ureteral calculi are obscure and variable. I have suspected ureteral stones when they did not exist and I have, in a few instances, suspected appendicitis when ureteral calculi did exist. There are four cardinal symptoms of ureteral calculus: pain, hematuria, anuria, and pain on micturition;

one or all of which may be absent. The pain in appendicitis is most common over McBurney's point. We should bear in mind, however, that the average appendix is about four inches long, thus making a radius almost large enough that the end of the appendix may be adhered to any point in the abdomen thereby causing the seat of pain to be located any place in the abdomen.

Sometimes the appendix is located high up, and sometimes it is low down in the true pelvis, so as to be out of reach of the palpating finger. This is especially true in retrocecal appendicitis. The pain is very often in the loin, in the back, and, in some cases, below the border of the twelfth rib. In muscular or fleshy individuals it is almost impossible to palpate with any degree of accuracy; and it is these cases that put us to the test in differentiating ureteral stone and appendicitis. The neurotic will often complain of pain on slight touch to the skin and we must guard against being misled. A frequent symptom in appendicitis is pain at the navel shortly after eating. This is especially true in the chronic type, which we assume to be pyloric spasms. From all the varying locations of pain in appendicitis we may see how unreliable this diagnostic sign is in making our diagnosis, and in differentiating it from ureteral stone.

It is this fact that makes the x-ray examination in doubtful cases of the greatest importance. This has been the result of my experience, and we should be guarded in our diagnosis, not allowing our enthusiasm to operate too hastily to run away with our better judgment before utilizing all the methods at our command to differentiate the two conditions.

In conclusion, and without relying on statistics, I would say that stone in either kidney, ureter or bladder shows up in a larger percentage of cases than is generally suspected; and, secondly, that in a large number of cases showing no stone shadow, further examinations often revealed the true condition to be appendicitis, often with other lesions present.

The following case histories will illustrate the liability of confounding the two conditions, or the difficulty of arriving at a correct diagnosis between them:

CASE 1. Male, age 24, white, occupation teacher, previous occupation farmer, habits good.

Family history: Good.

Previous history: Unimportant.

Present illness: About three months prior to my seeing him began having burning pain in the abdomen radiating up to the lower border of the ribs in the back of the right side, followed in a short time by a sharp intermittent pain in the right lumbar region. He had complained of some digestive disturbances. On December 20 he was seized with a severe pain in the abdomen in the region of the umbilicus.

Present examination: I saw him three days after the onset of the severe symptoms. Patient well nourished; temperature slightly subnormal; pulse 120; respiration accelerated; nausea; vomiting; thirsty; restless; severe cutting pain in abdomen around umbilicus; abdomen distended; muscles rigid and tender, the tenderness worse on the right side. Urinalysis showed S. G. 1020; no albumen; no sugar. Did not examine the urine microscopically, nor was there any blood examination.

CASE No. 2. Female, age 32, white, occupation housekeeping, habits good.

Family history: Unimportant.

Previous history: Had all diseases of childhood. Began menstruating at 14 years of age. Had an attack of cramp colic followed by typhoid fever when 24 years of age, after which she had good health for three years. Suddenly she was seized with severe cramp-like pain in the abdomen, radiating into right lumbar region, nausea, vomiting, etc., which was relieved by morphine.

Present illness: Began with cramp-like pains in abdomen radiating into back and into the right lumbar region, nausea, vomiting, frequent and painful urination; also complained of pain when bladder was full.

Present examination: Had been ill for three months. Patient fleshy, pulse 100, temperature 100.4, abdomen distended and tender, nausea and vomiting. Recti muscles rigid, especially on the right side. Dull pain with intermittent sharp pains going to right lumbar region and into the bladder, frequent urination. Urinalysis: S. G. 1024, no albumen, no sugar, no microscopical examination of urine. Blood examination not made.

CASE No. 3. Female, age 29, white, occupation housekeeping, habits good.

Family history: Negative.

Previous history: Had all diseases of childhood, malarial fever at 20 years of age. Menstruation began at 13 years. Had been treated for intestinal indigestion and cystitis; but neither of them severe.

Present illness: Began three days before being brought to the hospital with extreme sharp lancinating pain in right hypochondriac region radiating into right side in the back along the border of the twelfth rib and down into loins. Micturition frequent, urine scanty, nausea and vomiting extreme.

Present examination: Patient fleshy, pulse 110, temperature 99, constipated, abdomen slightly distended and tenderness all over lower abdomen but greater over McBurney's point. Pain sharp and cutting. Extreme thirst, nausea and vomiting with severe headache. Urinalysis: S. G. 1024, albumen slight trace, sugar negative, few blood cells. No blood examination.

SUMMARY.

The diagnosis of acute appendicitis was made in Case No. 1, and operation advised to which the patient consented. When the acute symptoms had passed off the appendix was removed, which was found slightly bound down by adhesions. Recovery was uneventful and patient left the hospital on the tenth day, and was apparently perfectly well for three months, when, while visiting at his former home he had a recurrence of his former attack, and his physician advised him to go to Mayo Brothers, which he did, and they removed a perfectly normal ureteral calculus, three kidney stones, and one bladder stone.

CASE No. 2. This case came under my observation about two months after Case No. 1, had been operated on at Rochester; so, profiting by my past experience with Case No. 1, I advised an operation for ureteral stone, to which the patient consented. The diagnosis in this case was perfectly clear after having explored the kidneys, ureters and bladder, I turned to the appendix and found it bound down to the cecum by adhesions, and also a band of adhesions arising from near the base of the appendix passing upward and outward and attaching to the abdominal wall near the anterior superior iliac spine, thence back underneath and attaching near the point of origin, making a perfect trap into which a loop of the gut would drop, and when gas and the contents of the bowels would accumulate causing a strangulation which so closely simulated the symptoms of Case No. 1. The operation consisted in clipping the adhesions and the patient made a complete recovery and has been well ever since.

CASE No. 3. The wife of a colleague was brought to the hospital by her husband and a doctor friend, accompanied with a diagnosis of appendicitis, and after examining the patient I confirmed the diagnosis and advised the removal of the appendix. The operation was performed in the morning, and on the night following the nurse phoned me the patient was unable to void, and she was unable to pass the catheter. I attempted to pass the catheter and it met an obstruction which proved to be a stone in the neck of the bladder. We anesthetized the patient and removed the stone since which time the patient has been perfectly well.

I can not lay too much stress on the value of the x-ray in arriving at a correct diagnosis between the two above conditions. Had I attached more significance to the previous history in Case No. 2 in which the patient told me of having had a case of "cramp colic," followed by typhoid fever when she was 24 years of age, it would not have been necessary to explore the kidneys, ureters and bladder, when really she had acute suppurative appendicitis.

Had I not overlooked the presence of the few blood-cells in the urine of Case No. 3, the second anesthetic would have been unnecessary.

Gentlemen, all of us are surgeons who operate; but all who operate are not diagnosticians. The surgeon who fails to use all the information possible to arrive at the correct diagnosis in these cases, will ultimately be confronted by patients who will show him up by going to other surgeons who will have the advantage of his mistake, and will operate and relieve the true causative factor.

DISCUSSION.

Dr. C. S. Pettus (Little Rock): There are several impressive points in the paper. The thing that impresses me most is the frankness and courage of the essayist. The mistakes that he acknowledges may be the experience of many doctors who are doing surgery. No one could more generously acknowledge their mistakes in differentiating between ureteral calculi and appendicitis than he has done in the statement he has given us. The most perplexing conditions that confront the surgeon in deciding a diagnosis of appendicitis, I believe, is to differentiate between appendicitis, pyelitis or ureteral calculi and obstruction of the bowels; and in the female, ovaritis salpingitis.

Because appendicitis is a common disease and we have largely gotten into the habit of suspecting any pain around the pelvis the symptom of appendicitis, we often overlook the necessity to search for other diseases.

The essayist did not mention pyelitis. The symptoms of pyelitis and ureteral calculi as to pain being

similar, I assume he thought that it was unnecessary to mention this disease.

I had an experience several years back that turns the picture as he has drawn it in his paper. It was a typical case of appendicitis progressing to pus formation. Nature was kind and the patient doing well, when suddenly there appeared an abundance of pus in urine and difficult urination. This sudden change puzzled me. I called in a colleague in whom I had a great deal of confidence. I explained the beginning of the disease. He disagreed with me that it was in the beginning appendicitis, but thought it was pyelitis. I contended that the appendicitis abscess had broken through into the ureter. After two weeks of investigation and consultation it was decided to explore the appendix.

In going into abdomen we found a walled-off abscess with the appendix attached to ureter. The removal of the appendix cleared up all the urinary symptoms and the patient made an uneventful recovery.

As this case was interesting and showed further the confusion of a diagnosis between a diseased appendix and ureter involvement, I thought that it might be well to relate it.

Dr. C. V. Scott (Little Rock): I had the same trouble that the essayist had. I was called to see a case that had all the symptoms of a pus appendix, with a great big tumor right around McBurney's point. I made a diagnosis of pus formation. Immediate operation was suggested and accepted. We found a perfectly normal appendix with a displaced kidney, hydro-nephrosis slipped down to that point. That shows how easy those mistakes might be made.

Another point which the doctor made, which I have frequently found, too, is that the appendix may be attached to anything. I have found the appendix attached to the fundus of the uterus; attached to the fimbriated extremity of the tube and to the border of the liver. It is a very hard matter sometimes to make a diagnosis.

In the male patient, with renal calculi, symptoms appear that are almost always unmistakable. You have retracted testicle on that side, with severe pain in the end of the penis, together with the lancinating continued pain along course of ureter, relieved only by large doses of morphine. In some cases you find blood in urine.

Dr. H. King Wade (Hot Springs): There is a field of differential diagnosis which is very important, that has not been touched upon. The cystoscope is of invaluable aid in the differential diagnosis between appendicitis and ureteral calculus.

X-ray of the kidneys and ureters is of little value without x-ray catheters in the ureters. Upon catheterization of the ureter in which there is a stone, you will note obstruction to the passage of the catheter. By manipulation you may be able to pass the stone, then the x-ray will show the shadow of the stone in proximity with the catheter. Another method of determining the presence of a stone is to insert a wax-tipped catheter into the ureter past the stone, then withdraw, and scratches will be registered in the wax, indicating the presence of stone.

The blood picture in the two conditions is usually different. In appendicitis there is a more or less marked leucocytosis, as a rule; while in stone without infection this is not true. There is usually an elevation of temperature in appendicitis.

Urinalysis in the two conditions gives you considerable information. In case of stone the urine usually shows blood and pus cells in varying degree.

We repeat that we do not think x-rays of the kidneys and ureters without catheters in the ureters are of very much value, but with them in place and with

the findings mentioned you can arrive at a correct diagnosis.

Dr. H. E. Murry (Texarkana): I think that one of the chief reasons why we are condemned, and the chiropractics are making the headway they are, is because the average patient thinks that the table in the doctor's office is for operations only. A great many patients come into a doctor's office, their pulse is felt, their tongue looked at, they are given a prescription and they pass on. They don't think that is worth the money they pay; and it is not. Every patient who comes into our offices should go on the table and be examined. That is what the chiropractor does. He feels of them and examines them. This is worth while; they think it is worth something. We would accomplish more if we made use of this point.

In regard to diagnosis of conditions in the abdomen: If we will make these examinations thoroughly, certainly we shall improve ourselves, and we shall do much more for the patient. An examination of the urine and blood should be made in every case where there is any doubt whatever as to the cause of the trouble.

To illustrate a case where neither one of these was of very much value, we had a case of a man with an enlarged spleen; that is what it appeared to be. Of course, at first we thought it was malaria. In making a blood count, there were no malarial plasmodia found, but increased leucocytosis. The man had a high fever, of course. Urinary examination showed there was absolutely nothing wrong with him, so far as the pathologist could tell. Repeated examinations of urine were made two or three times a day and from one to two times a day an examination of the blood was made. The blood count increased. The leucocyte count increased. The spleen continued to increase in size. So, we decided to make an exploratory examination. The man was getting worse. When patient was operated on an abscess posterior to the spleen was found. The man was drained for several days, and after a time died. At the autopsy it was found that his left kidney had been entirely destroyed, and yet there was no sign of this in the urine. There was nothing to indicate that there was any trouble with the kidney at all. There was a tumor in the region of the kidney; but from there, not finding any indication of trouble in the urine, we decided that it was not the kidney; but that there was something wrong with the spleen.

So, I just would like to emphasize again that the table in the doctor's office is not entirely for operative purposes. (Applause.)

Dr. A. S. Buchanan, in response: I thank the gentleman very much for the discussion. I left out the cystoscope on purpose. We know now that the cystoscope is very beneficial to us. The facts are, we use it in our work as much or more than anything else. I am glad the doctor brought it up.

I am also glad that Dr. Murry brought out the fact that not always, in every case, do you find blood, because you don't.

The main object of my paper was to emphasize the fact of not taking the other fellow's diagnosis. I have accepted the diagnosis of my doctor friends until I have gotten into more trouble than I could afford. I don't do it any more. It takes a little time to make a diagnosis of anything. On any symptom that might be confounded with any other condition, we tell them that we will likely be able to make a diagnosis in a week, and if we all make a diagnosis in a week we have done pretty good work. Many of us who do what you might call country surgery, don't have a cystoscope. Many of us who do country surgery, don't have any very extensive laboratories to make these blood examinations. Many of us don't have time to make the blood examinations, if we knew how. But, I contend that it takes about a week to make a diag-

nosis of any obscure condition, because you have to make repeated examinations, and, after you have made your diagnosis, you have to confirm it.

The average man that is doing surgery any place, especially in the country, when the doctor brings in a patient for an operation, he usually is accompanied with a diagnosis already made. The average surgeon goes ahead and operates for that condition. I am frank to say that I have made these mistakes, and I am trying to get away from them.

I think, if my paper is worth anything, it will be worth more to the man who is practicing medicine in the country and not trying to do surgery, or the man who is trying to do surgery, because they themselves if they have a pain especially in the lower abdomen, call it appendicitis. It doesn't make any difference what it is; they never stop to think. The average man will say, if a patient comes to him or sends some member of his family into the office and tells the doctor that he has a pain down in the abdomen, he tells him right off the bat that he has a case of appendicitis.

Again I thank you very much for your discussion. (Applause.)

RESOLUTION ON "STATE MEDICINE."

"The American Medical Association hereby declares its opposition to all forms of 'State medicine,' because of the ultimate harm that would come thereby to the public weal through such form of medical practice.

" 'State medicine' is hereby defined for the purpose of this resolution to be any form of medical treatment, provided, conducted, controlled or subsidized by the federal or any State government, or municipality, excepting such service as is provided by the Army, Navy, or Public Health Service, and that which is necessary for the control of communicable diseases, the treatment of mental disease, the treatment of the indigent sick, and such other services as may be approved by and administered under the direction of or by a local county medical society, and are not disapproved by the State Medical Society of which it is a component part." (*Abstract from Minutes of the Seventy-third Annual Session of the A. M. A.*)

CHATTANOOGA MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

The Southern Medical Association will hold its sixteenth annual meeting in its birth city—Chattanooga, Tenn., "The Dynamo of Dixie," Monday, Tuesday, Wednesday and Thursday, November 13-16, 1922. Dr. Seale Harris, Birmingham, Ala., president.

Among the distinguished visitors will be Dr. George W. Crile, of Cleveland, and Dr. George W. Holmes of Boston. Elaborate entertainments have been provided for all in attendance, especially for the wives of the physicians.

THE JOURNAL

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WILLIAM R. BATHURST, SECRETARY-EDITOR
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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

MALARIA PREVENTION.

The Stuttgart vicinity offers a splendid example of successful and intelligent work in malaria prevention. Of course it is a matter of common knowledge that stagnant water affords ideal breeding spots for the malaria carrying mosquito. The usual method is to eliminate stagnant pools, but in the rice country such effort is nullified by the necessity of maintaining irrigation water for the rice. Then the next matter to consider is to keep the mosquito away by careful screening of homes. This has been so well done in the community that the percentage of malaria infection is estimated as below five per cent, and from that to two per cent, while on White River, twenty miles distant, blood tests show twenty per cent infection.

THE PROPOSED GORGAS MEMORIAL.

It is proposed to immortalize the memory of the late Gen. William C. Gorgas by a memorial which will endure and be of inestimable service to mankind—and the great Gorgas, were it left to his wishes, would desire no other kind. After the death of Robert Burns, the prodigal poet, whose last years were darkened by poverty, his admirers erected a monument to his memory. His old mother, when informed of the project, remarked with bitterness of spirit: "Ye asked for bread and they gie ye a stane." The sculptured monument may perpetuate the memory of the great, but that is all. The ideal monument takes such form as to carry on the work of the subject after death for the benefit of mankind. Thus one is enabled to say "Dead he still liveth"—and this is the kind of monument projected to honor the memory of the great sanitarian and humanitarian, whose services can not sufficiently be extolled.

Readers of Sterne will remember how, in "Tristram Shandy," the keen but gentle satirist deploras the honoring by monuments of the famous killers of men while anything whatever to do with the making of a man is taboo in polite society. Equally true is it that while we honor the names of the famous generals and admirals and erect statues to their memories, the names of the great scientists, surgeons, sanitarians and others whose efforts have been directed to the saving of lives, the

prolonging of the average life and the welfare of mankind, are largely forgotten. Any school boy can tell you of the glories of the killers of men, of Hannibal, of Caesar, of Napoleon, of Wellington and of our own war heroes—few can tell anything about Pasteur or Jenner, Loeb, Flexner, Carrel, Crile and other scientists who have eliminated yellow fever, who have largely conquered malaria, who hope yet to eliminate tuberculosis, cancer, hookworm, typhoid, who prevent the invasion of our country by bubonic plague and cholera, whose efforts have in a hundred ways made for the health and happiness of mankind. Any school boy can tell you about Lee, Jackson, Grant, Sherman, Dewey, Pershing and the rest of the heroes of wars of the present generation. How many know the first thing of the services of the subject of this article? We would not for a moment minimize the services of the war heroes who have preserved our country; but we would not have the names and services forgotten of the heroes of peace and medical science. We believe that a memorial to the hero who gave his life to an experiment to demonstrate the activities of the yellow fever carrying mosquito is as important as a memorial to the war hero who directs the killing of men. We would at least have the rising generation give equal honor to the man who saves life as to him who destroys life. Never will permanent peace reign on earth while war heroes alone are exalted in the eyes of youth.

Major General Gorgas formerly was a president of the American Medical Association; but it is not merely for that reason that an enduring monument should be erected to his memory. Nor is it for his great services as a sanitary officer when, as Surgeon General, he directed the organization and equipment of the Medical Corps of the Army in the late war. Rather his work should be stressed as the man whose efforts in sanitation and the elimination of tropical diseases made possible the building of the Panama Canal and his services to the whole world in the matter of preventing and controlling infectious diseases. The proposed memorial is to take the form of a scientific institute at Panama for the study of tropical diseases and of preventive medicine. President Porras of Panama has donated the great Santo Tomas Hospital and the ground for the buildings projected, and it is proposed to obtain an endowment of

\$6,500,000 to insure the permanency of this great work of world-wide importance.

The campaign for funds will be of international scope, and the Latin Americas, the chief beneficiaries of the work already accomplished by the late General Gorgas, are expected to lend assistance on a large scale. The American Medical Association has named a committee to assist in the work of raising the fund and the co-operation of every medical organization in North America is urgently requested and confidently expected. Checks should be drawn to the order of the "Gorgas Fund" and mailed to the American Medical Association, 535 North Dearborn Street, Chicago, Ill. The committee of the A. M. A. consists of the following members: Dr. Charles W. Richardson, Washington, D. C.; Dr. F. B. Lund, Boston, and Dr. G. E. de Schweinitz, Philadelphia.

The committee appointed by President Robert Caldwell representing the Arkansas Medical Society to act on the project is as follows: Dr. G. B. Fletcher, Hot Springs, chairman; Dr. O. L. Williamson, Marianna; Dr. J. S. Westerfield, Conway; Dr. C. A. Rice, Rogers; Dr. C. S. Early, Camden.

Editorial Clippings.

THE SIXTEENTH BIRTHDAY OF THE SOUTHERN MEDICAL ASSOCIATION.

Sixteen years ago, in 1906, the Southern Medical Association was born in Chattanooga. It was an accouchement of so much importance that doctors from six States were called in consultation to see that the baby was properly born. Neither chloroform nor "twilight sleep" were used to decrease the pains of parturition, though the mother association, the Tri-State Medical Society of Georgia, Alabama and Tennessee, gave up her life in bringing into being an infant that has had a phenomenal growth.

The infant prodigy among medical associations was tenderly cared for and was properly nourished by the physicians from six States for five years, when it outgrew its swaddling clothes and the medical profession of the sixteen Southern States was called upon to adopt the Southern Medical Association. It seemed that the time was propitious for the growth and development of the young medi-

cal giant because the leading Southern physicians in all lines of work, nearly 7,000 at this time, have vied with each other in their interest in the upbuilding of a great medical association in the South.

The Chattanooga physicians have been among the most ardent supporters of the Southern Medical Association throughout all the years of its existence; and now that it is full grown, being the second largest medical association in the United States, and "the most independent on earth," it seems fitting that the members of this great medical organization should make a pilgrimage to the city of its birth.

Many changes have taken place in Chattanooga since the Southern Medical Association was born. New and great hotels have sprung into existence and other improvements have been made, so that the beautiful city that lies at the foot of battle-scarred Lookout Mountain seems to have been preparing to entertain the 2,000 or more physicians who will gather there November 13-16 to add another chapter to the history of American medicine.

Since Chattanooga and its environs, Lookout Mountain, Missionary Ridge and Chickamauga, was the storm center of the last year of the Civil War, and since Camp Greenleaf, the great medical training school in the World War, where doctors were taught how to pick up cigar stumps and make up beds, was located near Chattanooga, there is much of historic interest for the physicians and their wives who will attend the November meeting of the Southern Medical Association. Indications point to a record attendance, and the Chattanooga physicians assert that all who go will have satisfactory hotel accommodations.

The chairman of the Hotel Committee, Dr. J. H. Revington, suggests that doctors get together in their towns, plan to go together and room together, and make their reservations for these parties of two, three and four. In that way all can be taken care of nicely.

Special, round trip, reduced fares have been granted on all railroads on the certificate plan, just as last year. Each member of the association will receive a certificate in due time without making application for it. Doctors who are not members and who wish to attend will have to ask the association office for a certificate in order to get the benefit of the reduced rates.—*Southern Medical Journal*.

Personal and News Items.

Dr. H. H. Niehuss of El Dorado, is doing post-graduate work in Rochester, Minn.

Dr. J. H. Phipps has moved from Roe to Clarendon.

Dr. E. R. King has moved from Wickes, Arkansas, to Alikchi, Oklahoma.

Dr. Geo. M. Eckel of Hot Springs has returned from an extensive stay in New York.

Dr. H. Fay H. Jones, of Little Rock, announces his practice limited to urology and syphilis.

Dr. and Mrs. C. C. Kirk and family of Little Rock have returned from their vacation in the East.

Dr. Paul Mahoney of Little Rock is in New Orleans attending the eye, ear, nose and throat clinics.

Dr. A. C. Haney has moved to Russellville and will limit his practice to diseases of the eye, ear, nose and throat.

It is with regret that the death is announced of Dr. Alexander Righter Craig, Secretary of the American Medical Association, which occurred Saturday night, September 2, 1922, at Port Deposit, Maryland.

Announcement has just been received that the Tri-State Medical Association (Arkansas, Louisiana and Texas) will meet the first Tuesday and Wednesday in December, at Marshall, Texas. Dr. J. N. White of Texarkana is president.

In this issue appears a page advertising of E. R. Rollins & Sons, one of the leading financial houses of Boston. This firm handles only high-grade investment bonds, and they have a good reputation in the investment field. This advertisement was secured for us by the Co-operative Medical Advertising Bureau of Chicago, whose management is under the auspices of the American Medical Association.

The Propaganda Department of the American Medical Association have issued four pamphlets, as follows:

"Female Weakness Cures," 68 pages; illustrated. Price, 15 cents.

"Epilepsy 'Cures' and Treatments," 38 pages; illustrated. Price, 15 cents.

"Obesity Cures," 62 pages; illustrated. Price, 15 cents.

"The Nostrum and the Public Health," 16 pages. Price, 10 cents.

The first three pamphlets deal, as the name denotes, with specific products of the types described in the title. The fourth pamphlet does not deal with any specific nostrum, but discusses the general relation of the "patent medicine" evil to the public health. This pamphlet also contains an article on "Truth in Advertising Drug Products" and three short items on certain phases of the nostrum business.

U. OF A. SCHOOL OF MEDICINE.

The largest enrollment in the history of the University of Arkansas School of Medicine was reported September 20, when the 1922-23 term began. It is believed that there will be about 125 students by the time registration is completed.

In his opening address of welcome in the assembly hall at the old Statehouse, Dr. Morgan Smith, dean of the school, urged the students to take up their studies vigorously from the beginning and thus, he said, they would have less trouble throughout the course. He reviewed the history of the college and mentioned the advantages accruing to the profession in the last ten years.

The first two years of the course will be given in the old Statehouse, where the laboratories and library are located. The last two years will be given at local hospitals, where clinics are available.

Improvements have been made in the chemistry laboratory and anatomy room during the summer. The school now has an "A" rating comparable to the rating of all large medical schools and has the advantage of offering lower tuition fees than the larger schools.

Junior students will receive instruction this year in the clinic and the four hospitals of the city.

MEDICAL AUXILIARY ORGANIZES AT TEXARKANA.

Prior to the informal reception to the members of the Miller and Bowie County Medical Societies and their wives given August 25, by Dr. and Mrs. S. A. Collom, at their hospitable

home on State Street, an organization of a Medical Auxiliary was effected, which promises to be an important factor in club affairs in Texarkana, being somewhat different in its scope of activity than any other, and filling a gap between the purely social, philanthropic, patriotic or study clubs already in operation. Mrs. S. A. Collom, who is a district organizer of these auxiliaries in Texas, acted as temporary chairman and appointed Dr. Nettie Klein secretary *pro tempore*, who read the constitution and by-laws. A paper delineating the value of the auxiliary as seen at the State Medical Society, written by Dr. J. N. White, was read by Mrs. E. M. Watts. The election of officers resulted as follows: President, Mrs. S. A. Collom; First Vice-president, Mrs. Preston Hunt; Second Vice-President, Mrs. R. H. T. Mann; Third Vice-President, Mrs. Will Tyson (New Boston); Fourth Vice-President, Mrs. J. W. E. Beck (DeKalb); Recording Secretary, Mrs. E. M. Watts; Publicity Secretary, Mrs. L. J. Kosminsky; Corresponding Secretary, Mrs. H. H. Smiley; Treasurer, Mrs. J. K. Smith. Widows of physicians and women physicians, members of the medical society, are to be made honorary members, Mrs. C. A. Smith being the first so named. The auxiliary will meet on the first Friday of each month. Those present last night were Mesdames T. E. Fuller, Wm. Hibbitts, Preston Hunt, Nettie Klein, L. H. Lanier, R. H. T. Mann, W. K. Read, J. T. Robinson, J. K. Smith, E. M. Watts, J. N. White, H. H. Smiley, L. J. Kosminsky, H. E. Murry and C. A. Smith. Later in the evening the physicians came from their session, about thirty of them, to enjoy the social hour which followed the organization meeting. Mrs. Collom was assisted in serving delicious table refreshments by Mrs. W. K. Read, Mrs. L. A. Tomlinson and Misses Martine Morris and Frances Harper. —*The Daily Texarkanian*.

BABY HEALTH CONTEST AT THE STATE FAIR, OCTOBER 9, LITTLE ROCK.

There is perhaps no other department of the State Fair this year that will receive more attention from the mothers of the State than the Baby Health Contest, which is to be conducted during the week of the fair under the direction of W. W. Dickinson and superintendency of Mrs. Mahlon Ogden of Little Rock. In fact, the contest will probably be

one of the most interesting features of the State Fair and the fair management is leaving nothing undone that will tend to make at least this portion of it a success in every way.

There will be on hand during the entire week of the fair a trained corps of medical experts who will be employed to determine the mental and physical status of the babies and apply the following tests: Mental, physical, eye, ear, nose and throat, dental and oral, weight and measurements.

Examinations of the babies will begin October 9, the opening day of the fair, and continue until Saturday afternoon. Babies from rural districts and towns of 1,000 population or less will be rated in Section A. Section B will include babies from towns of a population of over 1,000 and less than 10,000, while Section C will include babies from towns of a population of 10,000 and over.

The fair management is making adequate preparations for the care of the babies during the week. There will be plenty of nurses on hand to assist in caring for the babies. Dressing rooms, rest rooms and examination rooms will be provided and other equipment necessary for the comfort and proper care of the infants during and preceding examinations. For this purpose the fair management has secured six of the largest pro-slate houses used at the fair last year and will remodel them for the purpose of the baby contest.

Entries in the contest will close October 1. No entry fee is required. All entries must be made by mail or in person. Notices of the time of appointment for examination will be made in the order the entries are received. Beautifully engraved ribbons will be awarded in all classes. A handsome loving cup will be awarded to the baby boy or girl registering the highest score during the contest.

Following is an entry blank required in entering babies in the contest:

ARKANSAS STATE FAIR

Little Rock, Ark.

Please accept entry indicated below, subject to rules and classification governing Babies' Health Contest at Arkansas State Fair, as published in premium list by which

I hereby agree to be governed in exhibiting and I state that all statements made in connection with said entries are true.

Division No. No. of child of mother
 Name of child Breast fed
 No. months Sex Age in months
 Oct. 9, 1922. Mixed feed
 No. of months Father's name
 Age Bottle fed
 No. months Address
 What foods Street and No.
 No. feeding hours in 24 Mother's nationality
 Age Amount milk
 Child's weight at birth
 Kind of food at present Strong at birth
 Sleeps alone With whom
 Birth registered at
 Open air No. windows open

Obituary.

DR. A. C. JORDAN.—Dr. Arthur Clifford Jordan of Pine Bluff, died August 29, 1922, aged 62. Dr. Jordan was born in Carroll County, Mississippi; but has been a resident of Pine Bluff since 1889. He was a Fellow of the American College of Surgeons; occupied a high place in Masonic circles. At the time of his death he was chairman of the Board of Trustees of the First Methodist Church. He is survived by his wife, one sister and one brother.

ALEXANDER RIGHTER CRAIG.—The sudden passing of Dr. Craig is a shock that makes it difficult of realization. On August 25 he left for his annual vacation, and was spending it with his family in rural Maryland. For some weeks he had not been feeling altogether well, although he treated the matter lightly, and jokingly rejected the suggestion that it was time for him to take his vacation. Finally he got away and then, like a thunderbolt out of a clear sky, came the telegram telling of his death. The rank and file of the profession probably will never know the loss which it sustains in Dr. Craig's going. It is doubtful whether the impress he has left on the American Medical Association ever will be fully realized, except by the few who have been intimately associated with him. He was so unassuming, so modest, so free from any arrogant or dictatorial spirit,

that his far-reaching influence made itself known rather by end-results than by his efforts to bring about those results. Especially valuable were his counsel and advice in the various difficult problems that would come up in matters affecting the organization. To a degree far beyond the average man he was able to see the point of view of the other fellow and, by virtue of his desire to do to others as he would be done by, frequently brought harmony out of what bade fair to be discord. He not only filled the position of Secretary of the Association, but also was the secretary and executive officer of the Council on Scientific Assembly and of the Judicial Council. In the latter position particularly his exceptional tact showed itself. By his associates at the headquarters office, Dr. Craig was loved for his gentleness and unfailing courtesy. In all the years that he was with the Association, he was never known to make an unkind criticism of those with whom he was thrown in daily contact—subordinate or equal. Criticize, he could and would, when in his opinion principles were at stake; but always in a spirit of helpfulness and service. A rare type of man he was; a re-creation of the spirit of service; a giver of himself; a man whose life was a mission; "we shall not soon see his like again."—*Journal A. M. A.*, September 9, 1922.

County Societies.

LAWRENCE AND RANDOLPH COUNTIES.

(Reported by A. J. Clay, Hoxie)

The Lawrence and Randolph County Medical Societies met in joint session at the Old River Outing Club, Walnut Ridge, September 6, 1922.

Present: Clay, Guthrie, Hatcher, Henderson, Swindle, Thomas and Warren of Lawrence County. Brown, Hughes, Loftis, Pace and Throgmorton of Randolph County.

W. W. Hatcher, president, called the meeting to order.

Clinical cases: Icterus.

Dr. G. A. Warren read a very interesting paper entitled, "Are We Our Brother's Keeper?" He laid special stress on preventive medicine.

Dr. Warren appointed the following as committees: Dr. J. C. Swindle, Eastern District, Dr. A. G. Henderson, Western District and Dr. Throgmorton, Randolph County, to see that a Public Health photo film on cancer

is shown gratis in their communities. The film is sent to any Medical Society free of charge and can be shown as long as they see fit.

When the meeting was adjourned the doctors and their wives went to the beach for a swim, and at six o'clock a chicken dinner was served.

Book Reviews.

RADIUM THERAPY.—By Frank Edward Simpson, A. B., M. D., Chicago. 166 original illustrations. Published by C. V. Mosby Co., St. Louis. Price, \$7.00.

The author of this work presents a book not only to those engaged in radium therapy, but to all physicians, that it may serve as a reflex of the current practice in this branch of medicine.

THE PLACE OF VERSION IN OBSTETRICS.—By Irving W. Potter, M. D., F. A. C. S., Buffalo, New York. 42 illustrations. Published by C. V. Mosby Co., St. Louis. Price, \$5.00.

The method of version described in this book is the result of a gradual evolutionary development on the part of the author, who has personally delivered over fourteen thousand women. It is his opinion that version is of advantage to the child where there is likelihood of the labor being prolonged.

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The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

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OF THE

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1922

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Original Articles.

THE DIAGNOSIS OF NEURO-SYPHILIS.*

George M. Eckel, M. D., F. A. C. P.,
Hot Springs National Park, Ark.

In the space of time allotted this paper it would be possible to present but the briefest outline of the subject, and it will be my endeavor to bring to your attention some of the salient features of the diagnosis of nervous syphilis, and such diagnostic data as I have found most useful and reliable in my own practice. In such data as may be presented, while claiming neither originality nor priority, I shall not attempt portrayal of a textbook picture nor offer extensive review of the literature dealing with the subject.

The protean manifestation of luetic disease of the nervous system is too well known; but in passing I wish to remind you that almost every known and described symptom complex involving the cerebrospinal axis (as well as the less well known and not clearly indicated endocrine and autonomic nervous complexes) may be mimicked; and since this paper is to deal with the writer's personal experience, I may be pardoned for referring briefly to an analysis of one hundred cases of neuro-syphilis presented on a previous occasion before the Southern Medical Association.¹

The importance of a correct diagnosis of nervous syphilis especially in its earlier manifestations, serves as an excuse for my paper as does the increasing incidence of the disease syphilis with its varying (and I believe) increasing tendency to involve the nervous system; and, then, too, the World War has added greatly to the increase in the number of cases, nor can this increase altogether be accounted for by better facilities

for the recognition of the disease by modern laboratory procedure.

The importance of neuro-luetic disease and its early recognition when the means at our command for mitigating the evil may be used to best advantage is more fully appreciated by the neurologist and the internist; but it is of interest as well to the surgeon and specialist in medicine. I do not believe, however, that the sociologist has as yet come to place the proper emphasis upon syphilis as a factor in the present day social upheaval with its crime wave, moral devastation and economic havoc, although much good work is being done by the various boards of social hygiene and especially those under the supervision of the State and United States Public Health Service.

In the diagnosis of neuro-syphilis it is in my opinion a harder lesson for the medical man to learn even than that of noninterference in normal labor, that all signs and symptoms appearing in a luetic are not necessarily of specific origin, and certainly the proper evaluation of such symptoms so often equivocal in nature is not an easy matter; and in my personal experience in referred cases and in consultations, the greatest error is in over-emphasizing the finding of a positive Wassermann reaction on the blood serum, and here in passing I would remind you again that a positive blood Wassermann can be interpreted rationally as a corroborative symptom only, and the diagnosis of nervous syphilis can only be made after a painstaking examination of all available data following a comprehensive study of a given case.

Neuro-syphilis is an involvement of the cerebro-spinal axis by an animal parasite, the spirocheta pallida or treponema pallidum, from a focus of infection; an invasion of the nervous tissue by the causative organism where the spirochetes may multiply, and by direct action of the organism and of toxins,

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

and tissue response to localization with so-called "round-celled" infiltration, give rise to irritative inflammatory and pressure symptoms or where the organism may lie dormant for years to be lighted up after a widely variable length of time, through some lowering of resistance (of the natural immunologic processes) as by metabolic disturbances or coincident or intercurrent disease, and by injury, the irritative lesions may after a variable period, give way to degenerative changes where alteration of function or structure though variable, is inevitable.

As to the time of invasion of the nervous tissue, this is as variable as the neurologic picture, and in my personal experience has varied from as early as the 65th day to as late as the 31st year after initial lesion; and in this connection remarks below with reference to "asymptomatic lues" apply here to a certain extent.

As to the percentage of cases of luetic infection showing involvement of the neural tissue, in my personal cases, a series of fifty under observation five years ago showed 8 per cent positive, while in a second series of 100 cases seen within the past fifteen months there are 28 per cent showing positive; but Julius Grinker² in Tice's System estimates 5 per cent as the approximate percentage.

Syphilis is one of the ancient diseases and should not be viewed merely as an infectious process, and in neuro-syphilis a localization in the nervous tissue, but a racial poison as well; susceptible to inherent, acquired and environmental factors, and it is to be remembered that neuro-reaction to a luetic infection is largely a personal equation. Furthermore, in the writer's experience, the explanation as to why someluetics manifest nervous lesions while others escape, is to be sought in individual variation of susceptibility, neuro-inferiority, and in environment and heredity factors influencing the action of the organism on the neural tissue rather than selective action of two distinct types of spirochetes usually referred to as "dermo-tropic" and "neuro-tropic." And while the finding of the spirochetes in the brain and cord of tabetics and paretics serves to change somewhat the view so prevalent years ago that these degenerative symptom complexes are "parasymphilitic"; yet we of the younger generation favored by the notable advances in modern laboratory methods, would do well to study contritely the wealth of literature handed down by such

master syphilologists as Ricord, Fournier and others.

Time does not permit of discussion of racial factors in the incidence of nervous syphilis; but I would like to state that my experience of a number of years in treating a fairly large number of the Southern type of the negro, teaches me that the incidence of syphilis among the negroes while large is not equivalent to the great percentage oftentimes given by statisticians writing as syphilographers; and the percentage of neuro-luetics is larger than usually given but manifest differences in type due to race, inherent and acquired immunologic factors, and environmental, and to coincident and associated diseases.

In passing, I would direct your attention to the influence of pregnancy upon the course of luetic infection in the mother, a seeming protective process; and in this connection it is well to recall the importance of a study of the work of the older writers where their observations deal with Profeta's and Colles' Laws.

The existence of "asymptomatic syphilis" has been questioned by many writers, and my personal experience teaches me to believe that such cases represent mild early tissue response to luetic infection (where initial lesion may be masked as with intra-urethral chancre masquerading under Neisserian infection) where secondary manifestations were not recognized or by virtue of their equivocal character were improperly classified until some general symptom is emphasized by the finding of a positive blood Wassermann or positive cerebro-spinal fluid findings in the course of neurologic investigation, throws light upon a clinical picture wherein symptoms of nothing more tangible than an all embracing neurasthenia are manifest.

As to classification of neuro-syphilis for the purpose of this paper, I shall offer merely two main classes, "Early and Late," "Meningo-vascular or Irritative and Degenerative," "Interstitial and Parenchymatous"; and since the paper is to deal with the neurologic rather than the psychiatric side of the question, it will suffice to mention briefly a few of the commoner symptom complexes such as I have met with in my private practice.

In the "Late or Parenchymatous Variety," tabes, tabo-paresis and paresis; in the "Meningo-vascular or Interstitial," cerebro-spinal lues with general or disseminated lesions,

spastic paraplegia and Erb's syphilitic spinal paralysis, progressive muscular atrophies, neuro-radicular syndromes especially with cervical and lumbar cord and root involvement, optic atrophy, various palsies of the external eye muscles (ptoses, etc.), and varied degrees of neuro-retinitis.

Generally in early neuro-syphilis it is the multiform character of the lesions with transitory paralyses, pareses or weaknesses and parasthesias, the protean manifestation of the lesions with great variability, fugacious and inconstant, which suggests neural syphilis; and the mimicry of other symptom complexes oftentimes with rapid clearing without specific treatment only to recur after variable period.

Again, the intense pain, as headache with its tendency to become worse in the late afternoon; the pupil signs, as irregularities and inequalities, sluggish reaction to light, and tendency to ptosis and diplopia; early evidence of sphincteric involvement as irritability of the urinary bladder, the patient oftentimes stating that they either go for long length of time without desire to urinate and have difficulty in emptying the bladder or incontinence is complained of. Oftentimes there is complaint of the going for two or three days without bowel movement or tendency to loss of control with embarrassment in hurrying to the toilet. Numbness and tingling about the feet with burning, crawling sensation or formication; various fugacious but severe shooting pains in extremities; disturbances of digestive function with vomiting a prominent feature as in the early evidence of gastric crises; complaint of variable degree of impotency or there are periods of increased sexual desire, transient and alternating with loss of all desire; inability to get about well in the dark or losing of balance on leaning over lavatory to bathe the face may appear some time before the Romberg sign. In two instances patients came with the complaint merely of "biliousness" with marked relief from large and oftentimes frequently repeated and increasing doses of calomel.⁴

DIAGNOSTIC DATA OUTLINE.

Here the writer offers briefly such data as has been found useful in his practice, and time permits only of merest outline; but one should remember that the diagnosis of nervous syphilis is made after thorough analysis

of all available data; a thorough clinical and neurologic study of the case with the laboratory reports accepted as corroborative evidence:

FAMILY HISTORY: Here oftentimes valuable presumptive evidence as to heredo-lues is to be found, and it is not so much in positive evidence of luetic disease in the ancestry of the patient, as in "equivalents" as for instance, the so-called "strokes of paralysis," "fainting spell and fits," especially those developing after twenty years of age, "deafness" with indefinite clinical data associated, sudden "blindness" of one eye, "stomach trouble" of chronic type with headaches and vomiting; history of sphincteric disturbance of bowels and bladder some time before the onset of the intercurrent illness which caused death.

PERSONAL HISTORY: Here so much confusion is encountered as to the type of venereal sore in the male, that a history of any genital lesion should be viewed as luetic where the lesion lasted more than a week and responded to a dusting powder, since calomel is so often used in the latter; history of skin rashes such as "chicken pox," appearing after puberty, "heat rash," etc.; sore throat and so-called "stomach ulcers" (the latter appearing in the mouth); and all of this especially where there can be traced some connection with or appearance after a genital lesion, and it is to be remembered that these presumptive "secondaries" are apt to be so mild in neuro-lues as almost to escape notice.

HISTORY OF PRESENT ILLNESS: Here not so much valuable evidence is to be had except in advanced cases.

PRESENT COMPLAINTS: Here the "leading symptom" may be but remotely connected with the real cause of the trouble as in various parasthesias in luetic cord lesions, and the disturbed sphincteric control or slight evidence of incoordination as "difficulty in getting about in the dark," etc.; "stomach trouble," with persistent vomiting, which may indicate a gastric crisis of tabes.

GENERAL EXAMINATION: Here the gait, attitude, conduct of patient under observation and questioning, facies, tremor, etc., may offer indicative evidence.

THORAX: The heart with reference to chronic myocardial and valvular lesions, ar-

rythmias and partial blocks, and aortitis of varying degree, all may afford corroborative evidence; the lungs, however, do not offer much of value unless radiographic evidence of fibrosis can be interpreted as luetic.

ABDOMEN: Muscular rigidities; palpable liver where nodular especially.

BONES AND JOINTS: Here is the late degenerative lesions such as arthropathy as a Charcot joint may add its weight to the clinical picture; and I have found in obscure cases of disturbed locomotion radiographic evidence of chronic productive bone disease in and about the cranium, vertebrae and long bones oftentimes with pressure neuritic and neuro-radicular symptoms especially in cervical and lumbar regions; tibial periostitis; these together with the inferential evidence afforded by the finding of juxta-articular nodes.

SKIN AND GLANDS: The generalized hard and painless adenitis of early lues with involvement of nervous system may be of value; chronic leg ulcers open or scars after healing, and old scars of the skin with pigimentary changes and in delineation showing the "are de ecrele."

MOUTH AND THROAT: Here occasionally in early neuro-lues lesions within the mouth may be found, and destructive bone lesions involving the hard palate and nasal bones ("saddle nose"), and scars about the lips; stellate scars at angles of the mouth in heredo-lues; and from infiltration in and about the vocal cords with a type of hoarseness; and pressure symptoms as an aphonia from involvement of recurrent laryngeal nerve from aneurysmal dilatation of aorta and pressure from mediastinal gummata.

EARS AND ACCESSORY SINUSES: Here a type of deafness from involvement of the eighth nerve, and the Barany test may be of value where vestibular involvement is suggested; and in differential diagnosis of tumors or cerebellopontile angle.⁶

GENITO-URINARY SYSTEM, RECTUM AND ANUS: Initial lesion scars about the genitalia (penis and cervix) and recto-vaginal septum infiltration and ulceration; and at times where no history of genital lesion obtained, there may be history of persistent urethral discharge and endoscope reveal indurated scar of luetic lesion within the urethra, and this I have found in a number of cases.

NERVOUS SYSTEM: Here disturbances of the deep reflexes (as knee-jerk) may show exaggeration, loss or inequalities; alteration of cremasteric and abdominal; presence of Babinski, Gordon, Oppenheim may aid in the diagnosis and should receive the attention usually bestowed upon them as evidence of neural syphilis; symptoms of neuro-muscular incoordination as Romberg sign of static ataxia, and the "finger-nose," "heel to knee" etc.; tremors of upper extremities, facio-lingual, etc., and evidence of imbalance of external eye muscles, ptosis and such; irregularities and inequalities of the pupil, loss of response to light or sluggishness offer signs of great value and are usually sufficiently emphasized; and ophthalmoscopic examination of the eye grounds oftentimes affords evidence of greatest value as optic neuritis and various degrees of neuro-retinitis with pigimentary and vascular changes, and it is to be remembered that not infrequently early glaucomatous cupping of the disc may be mistaken for luetic optic atrophy, and the ophthalmoscope together with tonometer and perimeter should be a part of the neurologic examination where neuro-syphilis is suspected.

LABORATORY EXAMINATIONS: Blood chemistry, urinalyses and renal functional tests may offer corroborative evidence of visceral syphilis which may be associated with neural involvement (specific), and I have so often found evidence of moderate nephritis of mixed type with low phenol-sulphonaphthalein elimination showing marked and rapid clearing under arsphenamine that I have come to regard this as of considerable value; blood counts may show only secondary anemia associated with early syphilis or where there has been over-enthusiasm displayed in the use of mercury; Luetin tests I have found to be of but slight value, and in heredo-lues I no longer make use of this procedure.

BLOOD WASSERMANN: This is a most valuable diagnostic aid when properly applied, the positive finding having a greater value than negative; but the Wassermann reaction should be regarded as a symptom and establishes no fact in the diagnosis of neuro-syphilis further than that the individual has suffered a luetic infection since frambesia and leprosy are rare except in the tropics (and have other data to evince their existence) and a positive reaction should rightly

indicate lues; but in this connection weakly positive reactions (usually one plus) may at times be found in malaria but the proper use of quinine has in my experience never failed to clear this positive finding to negative.

SPINAL FLUID: Here evidence of great value in the diagnosis of neural syphilis is to be sought, and examination of the spinal fluid should be done in every case of syphilis. In positive cases the pressure is oftentimes increased, and this I am in the habit of estimating by the vis a tergo and rate of flow; the *color* is altered only where a small vein is punctured during rachiocentesis, in which case the color is that of ordinary venous blood diluted and centrifugalizing separates the clear spinal fluid while in the old sub-dural hemorrhages a yellowish color from altered hemoglobin is to be noted and in this connection xanthochromia may also occur in intramedullary neuro-lues; the normal fluid is clear, limpid, colorless and with specific gravity of 1004 to 1006⁵ (Weed); *Cell Count* is increased in nervous syphilis, and I have come to accept anything above 10 cells (lymphocytes) per cubic millimeter as pathologic; *Globulin* is as a rule increased and this hyper-albuminosis is shown by Noguchi's test or by Nome's; increased cells and globulin afford positive evidence of meningeal involvement, and offer two points of the "luetie triad" of which a positive *Wassermann* reaction on the spinal fluid is the other; the *Wassermann* is found positive with the smaller amounts of fluid (0.2 and 0.5 cc.) in parenchymatous lues and in the meningo-vascular or interstitial oftentimes only the larger amounts as 2 cc. show positive fluid *Wassermann*; Colloidal Gold Reaction is of great value where the test reagent is known to be dependable (I usually make my own colloidal gold and check again known positive fluids), giving the paretic, tabetic and luetie zone curve respectively in paresis, tabes and cerebro-spinal lues. In a series of fifty cases seen in private practice during the last year (not selected), and offered to show the relative value of laboratory diagnosis, all undoubted cases of neuro-syphilis, there were forty cases of acquired type, twelve of these tabes, and of these two gave negative blood *Wassermann* with the finding of the "luetie triad" (increased cell count, increased globulin and positive *Wassermann*) with tabetic curve on the spinal fluid; nine cases (tabes) showed

positive blood *Wassermann* with tabetic curve and positive finding of luetie triad on spinal fluid while one case showed positive blood *Wassermann* with negative spinal fluid *Wassermann*, but increased cell count, globulin and suggestive tabetic curve with colloidal gold. There were twenty-eight cases of cerebro-spinal lues with six cases showing negative blood *Wassermann* with luetie curve and luetie triad on the spinal fluid; one case with positive blood *Wassermann*, but negative spinal fluid *Wassermann* on all dilutions, dubious colloidal gold, but globulin much increased and cell count above thirty. Twenty-one cases gave positive blood *Wassermann*, positive luetie triad and luetie zone curve with colloidal gold on spinal fluid. There were ten cases of heredo-lues, all of cerebro-spinal type, many representing a neurologic motley of signs and symptoms; seven gave positive blood *Wassermann*, alterations in colloidal gold very suggestive if not typically luetie zone curves, and all seven showed the luetie triad on spinal fluid; but in the latter there were three with positive *Wassermann* only with 2 cc.; three showed negative blood *Wassermann* with luetie triad and luetie zone curve on spinal fluid. All of the series of fifty cases either received no treatment or very indifferent therapeutic endeavor, and none had received rachiocentesis until they came under my observation.

HEREDO-LUES: Here practically all that has been said of acquired lues, holds good for heredo-variety, with modifications. Oftentimes the "equivalents" in family history offer valuable presumptive evidence; and of the special signs and symptoms usually regarded as indicative of the disease, may be mentioned Hutchinson's teeth or their equivalents, interstitial keratitis, stellate scars about the angles of the mouth, "snuffles" in infancy if can be obtained from history; the stigmata of degeneration as malformations of the hard palate, flecks upon the iris, and oftentimes positive luetin reactions. The general data with modifications, usually make the diagnosis here as in the acquired variety of neuro-syphilis.

ILLUSTRATIVE CASES: Female aged eighteen, white, school girl, came with complaint of "bed wetting," stating that since she was eight years of age, she had almost every night urinated in the bed during sleep, but otherwise was well. The family history as elicited

from patient was negative; personal history gave evidence of measles and mumps before the age of four without complications; the patient a well nourished, apparently normal girl who had, except for the past six months when she quit school because of "nervousness," stood well in classes; the consultation was occasioned by embarrassment from nocturnal incontinence of urine. Examination showed only mild neuro-retinitis with pigmentary anomalies, sluggish pupils, highly exaggerated reflexes, equivalent of Hutchinson's teeth with slight anomaly of hard palate; mental examination negative except for a slight retardation of thought and emotional lability. There was nothing about the pelvis to suggest cause of the bladder disturbance, and laboratory reports were practically negative. On second visit to the office patient was accompanied by mother, and in the latter a unilateral ptosis was noted; examination of the mother's blood showed positive Wassermann reaction, but aside from the eye sign there was nothing in her history to suggest lues. Patient was kept under observation and given the thermal baths, and after third bath, had a chill followed by rise in temperature. Blood smear showed tertian malarial parasites, and quinine was given. Neosphenamine was given, and after first intravenous injection the patient's blood showed strongly positive Wassermann; mercury and arsphenamine together with potassium citrate and tincture of belladonna relieved the enuresis, and six months later the patient was well. This case showed nothing on psychiatric examination to indicate that psychoanalysis would be of any value in treatment; and heredo-lues with beginning sphincteric disturbance from involvement of lumbosacral cord, evidently represented as the principal etiologic consideration.

CASE II: White male, aged thirty, married and father of two healthy children; wife well and there was nothing noteworthy in either family or personal history, came under observation for persistent pains in leg (principally located from knee down and in both lower extremities); the patient admitted having suffered from urethritis some nine years previous to date of consultation. There was nothing further than urethritis in venereal history, and examination together with laboratory reports showed one plus blood Wassermann with moderate secondary anemia;

the liver was palpable and spleen hard and moderately enlarged, blood smear for malaria negative; neurologic examination practically normal, and there was no elevation of temperature at time of examination nor could history of malarial chills be elicited. Patient was requested to remain under observation for one week, but became dissatisfied and returned to his home, where he received arsphenamine and mercury; but there was no relief from pains in legs. He returned to Hot Springs some six weeks later and was given the baths and a prescription for temporary relief of pain. After third bath there developed a chill, followed by high fever and sweating, and sub-tertian parasites were found in the blood smear with Wassermann negative. Under influence of quinine and methylen blue the evidence of malaria together with pains in legs disappeared and eight months later there had been no return of symptoms. This case probably represented the so-called "bone pains" from chronic malaria instead of syphilis, and probably represents the type of case oftentimes improperly diagnosed as luetic.

CASE III: Male, white, aged 39, single, bond broker by occupation, came under observation some twenty-six months ago complaining of headache, obstinate constipation, difficulty in emptying the bladder and at times very urgent desire to urinate which resulted in wetting of clothes before reaching urinal; impotence for past five months; inability to get about well in the dark, and increasing irritability or as he gave it, "nervousness and impatience." Family history negative, personal history negative except for "soft chancre" (as he stated his physician had called it) some twelve years previous which had healed after about one week under treatment with dusting powder of calomel and bismuth; and the symptoms related above had been developing over a twelve month period during which time he had been treated for various and sundry diseases without relief. The general examination except for moderate enlargement of the liver, was negative; the laboratory reports including blood, urine, stomach contents, etc., showed nothing noteworthy and blood Wassermann was negative; neurologic examination showed deep reflexes exaggerated but left K-J less active than right, cremasteric and abdominal hardly to be elicited; no Babinski or Gordon, but Rom-

berg present though not marked; pupils sluggish and irregular with ophthalmoscopic examination indefinite. Spinal fluid showed luetic triad with colloidal gold luetic zone curve. Under intravenous arsphenamine and mercury there was some improvement in clinical picture; intraspinal treatment with reinforced antoarsphenaminized serum, mercury by injection and iodides intravenously cleared the picture markedly and patient has been practically free from symptoms since. Here excellent results followed specific treatment of the neuro-luetic syndrome and time will show (if ease can be followed) as to permanence of relief.

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²Grinker, Tice's Practice of Medicine, Vol. X, Chap. XII, pages 104-5.

³Classifications appearing in newer books on subject.

⁴One a case seen in consultation with Dr. W. L. Shirey of Texarkana.

⁵Weed, Physiologic Reviews, Vol. II, No. 2, page 171.

⁶Fisher, The Diagnosis of Brain Tumors by Barany Test, Jour. A. M. A., Vol. 78, No. 20, page 1515.

DISCUSSION.

Dr. C. C. Kirk (Little Rock): I enjoyed this paper very much. I appreciate the large field that the essayist attempted to cover in such a short space of time. Neuro-syphilis is a subject which can be talked on for hours and only a small portion of the subject covered. However, Dr. Eckel has given us the most important points in the diagnosis of neuro-syphilis.

In looking over our statistics today I thought it would be interesting to some of the members to know about the number of patients coming into our hospital with positive Wassermanns. We have made between six and seven thousand Wassermanns in the last five years. Some of these Wassermanns have been made on the same patient more than once; so that the statistics that I have will only cover the last twelve months. Particularly I want you to listen to the statistics pertaining to the negro.

I have been hearing a great many things about the negroes in the South who are syphilitics. In fact, I have heard that the percentage was as high as 100 per cent. I have heard men say that every negro had syphilis. I have heard it said that no negro ever had paresis, which, of course, we know is one of the conditions produced by syphilis.

Another point I want to call your attention to is the large majority of patients who have syphilis and don't know it. I haven't the records showing the number of women who come into our hospital that haven't any knowledge of ever having had syphilis; but if I were to make a guess I should say that at least fifty per cent of the women admitted have no knowledge of ever having had syphilis or any symptoms of

syphilis, and at least twenty-five per cent of the men who come there have no knowledge of ever having had it.

It is necessary to remember at all times, when you are studying cases of neuro-syphilis, and particularly when you have patients come into your office and say, "I have never had syphilis," that a great many of those patients had syphilis and didn't know it. They had it, but there were no external manifestations. It is surprising to see how many patients have latent syphilis, who never had any eruptions, never had any secondaries and never had any symptoms that would indicate that there was syphilis. So that, when you are getting your history of patients, don't rely too much upon the history or the things that the patient tells you. That is the first important point to remember in studying your case from that standpoint.

Next, it is necessary to always make a Wassermann test upon the spinal fluid in addition to the test made on the blood. Frequently patients show a positive Wassermann, especially of 1X or 2X on the blood, there may be a faulty technique in the laboratory or it may be due to some other disease, such as malaria or pellagra or tuberculosis. We don't know that those diseases produce this picture. There is absolutely no proof of that; but it is the theory that is generally accepted that malaria, tuberculosis and pellagra will produce 1X positive on the blood.

Now, I will read you the laboratory work that has been done during the last year, beginning May 16, 1921, and running to May 16, 1922. One thousand and eighty-three Wassermanns were made. That is the total number of patients received in the institution. I am not taking into consideration the patients who have had more than one Wassermann or more than one spinal fluid examination. Sometimes it is necessary for us to make three or four Wassermanns on the blood and two or three Wassermanns on the spinal fluid before we are convinced.

Now, of the 1,083 patients examined, fourteen per cent of the blood Wassermanns on the white patients was positive. Of that fourteen per cent ten was positive on the male patients and four per cent on the females. In the blacks, thirty-two per cent were positive, and of that thirty-two per cent, seventeen per cent was in the males and 15 per cent in the females. Now, that doesn't sound like fifty nor seventy-five nor 100 per cent. It is my opinion that the percentage of syphilis in patients who enter our institution is just as high if not higher than it is in the people who do not come to the institution.

Now, of the patients who have shown positive Wassermanns, we made spinal punctures, and in the spinal puncture thirty-one per cent of the whites showed positive. Of this thirty-one per cent, twenty-one per cent were in the males and ten per cent in the females. In the blacks, forty-three per cent were positive, thirty per cent in the males and thirteen per cent in the females.

Now the next question that arises is, "Can you have syphilis without having a showing in the blood or the spinal fluid?" In the blood, yes. There are many cases where all of the clinical symptoms were present, a perfect picture of neuro-syphilis, and no evidence of syphilis in the blood. As to the spinal fluid, ninety per cent of the patients probably showed some clinical evidence in the spinal fluid. It may be a positive Wassermann, it may be a positive globulin, it may be an increased cell count, it may be a gold colloidal reaction. Of all the tests that we make of

the spinal fluid, I believe the gold colloidal is the finest and most accurate.

The question arises: What is the general practitioner going to do when he has a patient who, he thinks, has neuro-syphilis, and he has no Wassermann facilities at hand? Remember this, that the Wassermann is only a symptom of syphilis. A positive Wassermann is only one of the symptoms. If you have changes in the pupils, if you have changes in the reflexes, be on the lookout for syphilis, and, when you have the clinical symptoms, don't back up because you don't find a positive Wassermann.

I examined a patient yesterday who had practically all of the symptoms of paralysis, both mental and physical, and when a Wassermann was made on both the blood and spinal fluid it was negative. Now, we didn't make anything except the one test on the spinal fluid and one test on the blood. We will make another test on both the blood and spinal fluid. In this case, too, there was some blood in the spinal puncture, which prevented us from making the other test, and also prevented us from making a cell count. The problem arises always, too, what can you do when you find a neuro-syphilitic. The old pessimism that formerly existed among men practising in the neuro-syphilitic field is gradually fading away. Not that we have reached the place where we feel that neuro-syphilis is curable, but we have reached the place where we feel that we can arrest a fairly large percentage of early cases of neuro-syphilis. The arresting of this terrible disease means very careful and very thorough treatment, consisting of all of the known specific remedies. Remember that. Use everything that you know of, and then some. Don't forget that you can cure with one thing, that you can give a dose of 606 and leave out your iodides and all of the other various treatments that we have been using.

There are many things not known about neuro-syphilis. There are many things particularly that are not yet known about the treatment of neuro-syphilis. It is an overwhelming field, and one in which investigators are working day and night and the progress, while slow, is such that we can see each year a little more than we saw the previous year. (Applause.)

Dr. R. F. Darnall (Little Rock): Of all the diseases that afflict mankind, I think syphilis is the most dreaded. Of all types of syphilis, the type which attacks the central nervous system should be recognized as being the worst. Why? A man may have syphilis for years and still be able to go about and take care of his business. But, if he has an infection of the central nervous system, you know that it is a very serious condition, and in many instances, when that fact has been established by diagnosis, it means the beginning of the end. Many investigators are giving this subject intensive research.

Those of us who have had any dealing with neuro-syphilis are impressed with a number of things in taking the history. Many times a patient has no knowledge of the initial lesion, no knowledge of any symptoms which would impress upon his mind that he possibly might have syphilis. These things are significant. All physicians who treat syphilis know that in some instances they have from the start fulminating symptoms most positive all the way through. In many instances those cases respond promptly to treatment. But, how does it happen that we have such a large percentage of cases that de-

velop neuro-syphilis and have such little knowledge of the initial lesion or the early symptoms?

In 1900 I made the statement: No syphilis, no paresis; but my assertion was not confirmed until 1912, when I had the satisfaction of seeing the spirochete demonstrated for the first time in the subcortical substance of the parietic brain, as so clearly brought out by Dr. Joseph Moore, of the Kings Park Hospital, New York, who was the first man to positively identify this micro-organism in the parietic brain.

It is my belief that within the life of some of you present it will be a very well established fact that there are various strains of spirochetes. If that is early determined, it means that it will not be necessary to allow that patient to go to the point where the central nervous system will be involved. It will be proven, according to my belief, that there is a type of spirochete which invades the central nervous system. And if that can be proven early, at the time of the initial lesion, you can see the advantage. You can give that man the type of treatment which will counteract or anticipate the involvement of the central nervous system. In that way we shall reduce the number of cases who come to our State institutions. I think along that line we may look for very decided results. (Applause.)

Dr. Eckel (closing): I feel that the discussion has added a real value to my outline, and I wish to thank Dr. Kirk and Dr. Darnall.

I think the statistics that Dr. Kirk gave us are exceedingly valuable, and I am sure you will be glad, even as I shall be, to see them in print.

As to asymptomatic syphilis, I believe the English writers give the most rational presentation of the subject; but time does not permit of its further discussion this evening.

Dr. Kirk brought out the importance of the blood Wassermann, particularly with reference to the negro race, as a diagnostic routine procedure; and I, too, have felt that estimates so frequently given as to the incidence of syphilis in the negro are rather exaggerated.

As to the importance of spinal fluid examinations, I am inclined to agree with Dr. Kirk, except that I do not know how to accept the colloidal gold reaction in cases of multiple sclerosis. In four cases of the latter disease seen within the last twelve months, two gave a luetic zone curve, and two gave a negative reaction; all four were undoubtedly typical cases of multiple sclerosis with absolutely nothing in the history suggestive further than the disease itself, and I do not believe any of them had to do with syphilis.

As to there being two distinct strains of spirochetes (neuro and dermo-tropic), I hardly know; I do not believe we are as yet in position to say definitely. From my own observations, I doubt personally if there is as much evidence in favor of two distinct strains as there is in a variation in the individual resistance of the patient, with special reference to the nervous tissue. Syphilis is a racial poison after the first generation, and in its multiform manifestations, largely a question of the personal equation in its reaction.

As to the choice of treatment, you have to individualize here, as there is individualization in the manifestations of its neuro-signs and symptoms. We have nothing else as varied as the signs and symptoms of neuro-syphilis.

Again, I wish to thank Dr. Kirk and Dr. Darnall for their comment and all of you for your patience, interest and earnest attention during this presentation.

THE DUODENAL TUBE IN THE DIAGNOSIS AND TREATMENT OF DISEASE OF THE BILIARY PASSAGES.*

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When any new diagnostic or therapeutic method is presented to the profession it is usually met by two types of reception; some going forth with open arms and hailing it as the *summum bonum* in the diagnosis or treatment of the pathologic state for which it has been devised, while others meet it with cold skepticism or even disdain.

The use of the duodenal tube in the diagnosis and treatment of disease of the biliary passages was no exception to the rule, but since Lyon¹ presented his original paper on the subject in 1919 it has been very thoroughly investigated in practically all of the clinics of the country and we are now in a position to pass some sort or critical judgment upon its value.

While to Lyon is given the credit, and rightly so, of developing the practical application of this diagnostic and therapeutic aid, it was due to Meltzer's² experiments on animals and to his suggestion that the work on human beings was undertaken by Lyon.

The following footnote was appended to Meltzer's article and, as Lyon states, served as his inspiration:

In experiments with magnesium sulphate I observed that the local application of a twenty-five per cent solution of that salt on the mucosa (of the duodenum) causes a completely local relaxation of the intestinal wall. It does not exert such an effect when the salt is administered by the mouth; that is, when it has to pass through the stomach before it reaches the intestines. The duodenal tube, however, apparently has reached an efficient practical stage. I make, therefore, the suggestion to test in jaundice and biliary colic the local application of a twenty-five per cent solution of magnesium sulphate by means of the duodenal tube. It may relax the sphincter of the common duct and permit the ejection of bile, and perhaps, even permit the removal of calculus of moderate size wedged in the duct in front of the papilla of Vater. Twenty-five c. c. of the solution as a dose for an adult will bring no harm. For babies the dose should not exceed four c. c. The procedure could be developed into a practical useful method.

It will be seen from this that Meltzer suggested the procedure both as a diagnostic aid

and as a therapeutic measure, and as such it has been developed.

The method of Lyon has been modified to a certain extent by various workers, but the general principle has remained the same. The procedure which I employ is as follows:

The patient is sent to the hospital the night previous and if at all inclined to be nervous is given 7½ grains of barbatol. The following morning no breakfast is allowed. The teeth are carefully brushed and the mouth thoroughly washed with an antiseptic solution. (A fifty per cent listerine solution answers the purpose admirably.) The duodenal tube which has been sterilized by boiling is then introduced into the stomach. I prefer the Palefski tube on account of the heavy bulb and the comparatively large openings. The stomach contents are then aspirated by means of a sixty c. c. sterile glass syringe and placed in a sterile container for future study.

The patient then slowly swallows the tube to the duodenal point, this being facilitated if necessary by giving him a glass of water or broth to drink. The patient then lies on his right side with the hips somewhat elevated by means of a pillow.

As a rule the tube passes into the duodenum in from fifteen to forty-five minutes, although I have seen it take as long as four hours. That the bulb is in the duodenum is determined in the following ways:

1. By the so-called duodenal "tug."
2. By the general appearance of the aspirated fluid, which when from the duodenum is a pearly fluid, with less viscosity than the gastric juice and which contains floccules suspended in it. In markedly pathologic conditions the duodenal fluid may be turbid and sometimes contains bile.
3. By the reaction of the aspirated fluid changing from acid to alkaline.
4. By the failure to immediately aspirate water, broth or grape juice which the patient swallows.
5. By fluoroscopic examination.

After it has been determined that the bulb has been passed into the duodenum twenty-five c. c. of a twenty-five per cent sterile solution of warm magnesium sulphate are slowly injected. Some workers inject larger amounts, but I have found twenty-five c. c. is usually sufficient. In a few minutes a light yellow bile ("A") is seen to drop from the end of the tube. The first fluid appearing is a mixture

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of bile, duodenal fluid and magnesium sulphate.

All specimens are collected in sterile containers for examination. After a variable period, ten to thirty minutes, the bile becomes darker and more viscid. This is gall bladder bile ("B") and is collected in a separate container. Again, in a few minutes the bile begins to become lighter and is bile from the hepatic ducts and the liver. This is bile "C." Some workers attempt to separate the bile from the hepatic ducts and the liver, calling the former bile "C" and the latter bile "D." This I have been unable to do.

The bile which has been collected is examined and studied as follows:

Gross appearance. Color, viscosity, turbidity, clarity, presence of gritty material.

Microscopic appearance. Cellular elements (epithelial cells and leukocytes); bacteria, crystals.

Bacteriology. Each specimen is cultured both in liquid and on solid culture media.

From the foregoing study it is possible to draw many conclusions.

The normal bile collected from the common duct is usually small in amount, not over ten or fifteen c. c., clear with perhaps a slight trace of mucus. In choledochitis the first bile collected is more viscid, usually turbid, with an excess of flaky mucus. It is as a rule of a darker color than normal. Microscopically, pus cells and epithelial cells, with occasional red blood corpuscles are found. Stained specimens may show bacteria and the cultures usually are positive.

In simple catarrhal jaundice this type of bile "A" is usually found with a lower grade of infection.

Normal gall bladder bile, or bile "B," is of a dark, golden yellow to a dark brown color, is usually more viscid than bile "A," and varies in amounts from twenty-five to seventy-five c. c.

In pathologic conditions of the gall bladder the bile may be markedly abnormal with increased viscosity which on examination shows numerous bacteria and a great increase in the cellular elements. This is practically pathognomonic of acute cholecystitis. If there is marked increase in the polymorphonuclear leucocytes with positive cultures for any of the pyogenic organisms the cholecystitis is of the suppurative type.

If the gall bladder bile is clear with an increased viscosity and a slight increase of the leucocytes with positive cultures a diagnosis of chronic cholecystitis is justifiable. However, an apparently normal gall bladder bile may be obtained in chronic cholecystitis, particularly of the "stone" type.

In cholelithiasis the findings are those of a chronic cholecystitis and also a gritty sandy substance may be found.

Failure to obtain gall bladder bile is indicative of cystic duct obstruction, while failure to obtain any bile shows common duct obstruction; of course, with the clinical picture of obstructive jaundice. Some workers claim to be able to demonstrate definite pathology in the hepatic ducts and liver by examination of bile "C" and "D." But this I have been unable to do.

So much for the diagnosis of diseases of the biliary passages *per se*.

It must be remembered that the gall bladder may be the focus of infection in other conditions, notably arthritis, without definite symptoms of gall bladder disease. It is, therefore, incumbent upon the physician to utilize this method in such cases if another focus of infection has not been found. The detection of chronic typhoid carriers has also been accomplished by this method.

Valuable as the duodenal tube has become in the diagnosis of disease of the biliary passages, its greatest field of usefulness is to be found in its therapeutic application.

Simple catarrhal jaundice is treated most successfully by this method.

Choledochitis and cholangitis are most favorably affected in some cases, especially where they have not been preceded by surgery. In the early cases of cholecystitis, particularly those complicated with typhoid fever (potential typhoid carriers), and the so-called "masked" focal infections of the gall bladder the results are good.

In empyema of the gall bladder during the acute stages, in patients who present serious cardiorenal contraindication for surgery the use of the duodenal tube has been more or less successful.

In cholelithiasis we have stepped beyond the usefulness of this method, although small stones have been made to pass from the common duct.

In cholecystectomized individuals the bile flow is practically the same in amount as those with intact gall bladder. However, the bile is of lighter color, less viscid, more transparent, and of a lower specific gravity. In

this type of individual the use of the duodenal tube is of the utmost value preventing the dangerous sequelae to which such are liable.

In the treatment of diseases of the biliary passages it has been my custom to employ the duodenal tube every other day, although some workers advocate its daily use. I feel that while it may take a little longer to obtain the desired results it is much better employed at the longer intervals.

The following cases are selected at random to illustrate some of the points which I have attempted to bring out:

CASE I: S. H. D., male, age 43, widower, restaurant keeper. Consulted me October 28, 1921, complaining of obesity, cramps in the side and "stomach trouble."

Family History—Father died of asthma at 72. Mother died of "stomach trouble" at 56.

Past History—Measles and mumps as a child. Gonorrhea at 15 and several times since. "Soft chancre" about 15 years ago. Denies other penile lesions, but in 1918 developed a typical macular syphiloderm and Wassermann reaction was four plus. The patient received about eighteen arsphenamine injections and on June 12, 1920, his Wassermann was negative.

Present Illness—Has been having pains in right side off and on for a year or more. These have never been severe enough to require morphine. He also complains of "heart burn" from thirty minutes to one hour after eating.

Examination—The patient is a moderately obese, florid male, five feet six inches tall and weighs 180 pounds. Scar size of a dime on skin of dorsum of penis. Cervical glands palpable. Epitrochlears and inguinals not palpable.

Examination of the throat reveals a chronic pharyngitis. Pulse 104, blood pressure 130-80. Heart and lungs normal.

Abdomen, pendulous with slightly tender area in region of gall bladder.

Eye grounds and the neurological examination are negative.

Urinalysis, negative, except for many pus cells.

Wassermann, two plus.

Gastric contents following the Dock breakfast, T. A., 96; Free H. Cl., 62.

Duodenal drainage, "A" bile, clear, light yellow, slightly viscid. Microscopically, negative.

"B" bile, dark coffee brown, viscid and cloudy, with a small amount of fine sand-like substance. Microscopically, many pus and epithelial cells and some fine crystals. Cultures, staphylococcus aureus and an unidentified bacillus grew in profusion.

A diagnosis of chronic cholecystitis with possible cholelithiasis was made. As the patient came to Hot Springs for treatment of his syphilis he did not want to undergo duodenal drainage while there. During his stay of six weeks in Hot Springs he had two attacks of typical gall stone colic which required morphine. I advised an operation and two months after his return home I received a letter from one of the leading surgeons of the East stating that he had performed a cholecystectomy on the patient, finding a chronic cholecystitis and one stone the size of a robin's egg.

CASE II: L. S., female, age 25, white, unmarried, bookkeeper. Came to me January 21, 1922, complaining of indigestion and nausea.

Family History—Poor. Two maternal aunts and one uncle died of pulmonary tuberculosis. Mother died of cancer of the breast. Father living and well.

Past History—Children's diseases. Diphtheria in 1911; appendectomy in 1915; tonsillectomy in 1920.

Present Illness—Began September 28, 1921, with a very severe headache which lasted one week, during which time she also complained of nausea and vertigo and became slightly jaundiced. Another similar attack began December 21, 1921, and she has not been well since. She is nanseated, occasionally vomits a little after meals and has lost eight pounds in weight during the past month.

Examination—The patient is a well developed female, twenty-five years of age, rather pale and slightly jaundiced. There are a few acne papules on the face and forehead. The lymphatic glands of the neck, axillae, groin and elbows are not palpable.

The tongue is slightly coated.

The bones, joints, heart and lungs are normal.

Examination of the abdomen reveals a scar fifteen cm. long in the lower right quadrant. There is also slight tenderness over the region of the gall bladder.

Blood pressure 120-80.

Examination of the eyegrounds and the neurological examination are negative.

Blood count. Erythrocytes, 4,400,000; Leucocytes, 8,000; Hemoglobin, eighty per cent; Polymorphonuclears, seventy-five per cent; large mononuclears, three per cent; Lymphocytes, twenty per cent; Eosinophiles, two per cent.

Wassermann, negative.

Urinalysis, negative.

Gastric contents following the Doek test breakfast, T. A. 100, Free H. Cl., seventy-five.

Duodenal drainage, "A" bile, clear, light yellow, slightly viscid. Microscopically, a few pus cells, (5 or 6 to a field). Cultures, negative.

"B" bile dark coffee brown, viscid, somewhat cloudy. Microscopically, many pus cells; cultures, staphylococcus aureus grew in profusion.

A diagnosis of chronic cholecystitis was made and duodenal drainage was repeated three times a week for three weeks, when the patient returned home, having gained eight pounds in weight and felt better than she had since the first attack in September. A letter received six weeks later stated there had been no return of symptoms.

CASE III: A. C., male, age 39, married, physician. Complaints of belching, migraine and "uncomfortable sensation" in right side.

Family History—Unimportant.

Past History—Measles as a child. Diphtheria at twenty-two. Denies venereal disease. Was operated on for appendicitis in 1911. Cholecystotomy and removal of gall stones in 1912. Recurrence of symptoms in 1920 followed by cholecystectomy.

Duodenal drainage performed four weeks later. At that time the bile was normal.

Present Illness—The patient has been in fair health since his cholecystectomy; but for the past two or three weeks has had more or less discomfort in the gall bladder region with some migraine and belching.

Duodenal drainage was performed, the tube requiring two hours to pass. The bile was clear, light yellow in color, microscopically was free from cellular elements and culturally was negative.

The day following the duodenal drainage the patient felt better than he had for weeks and as he was leaving for home the next day he was advised to have duodenal drainage repeated at weekly intervals for three or four weeks and then monthly during the next year.

¹Lyon, B. B. Vincent: Jour. Am. Med. Assn., 73:980 (Sept. 27), 1919.

²Meltzer, S. J.: Am. J. M. Sc., 153; 469 (April), 1917.

DISCUSSION.

Dr. R. H. T. Mann (Texarkana): This is a subject of which I know absolutely nothing. The paper which Dr. Thompson read deals with such a new subject that I don't think that such an important paper should be passed over without some discussion. I feel that this society owes to the men who come here and read these scientific papers, papers that are up to the last minute, so to speak, regarding the diseases of which they treat, that they should not be passed over without some kind of discussion. I wish I could discuss it. I should be glad to do so. I certainly have appreciated the paper.

Dr. D. C. Walt (Little Rock): Dr. Nile of Atlanta, Ga., read a report of four hundred cases that he had treated with the Duodenal Tube and expressed himself as thinking the procedure had come to stay, although we couldn't expect to get results that were helpful in all cases.

One of the cardinal values of magnesium sulphate is the attraction that magnesium has for carbon, neutralizing toxic value in addition to its eliminating influence. It will get better results over a longer time with less disturbance than any other drug of its class that I know. Maybe the time will come when we will care for people before such exaggerated symptoms show themselves as cholecystitis, or other disturbance of the biliary passages.

By proper sized doses at intervals we can drain the bile duct with epsom salts taken without the tube as well as with it. But, there are times, on account of a peculiar condition of the patient, when better results may be obtained without the tube.

Dr. H. E. Murry (Texarkana): We have made something over 210 drainages on different patients, and have had 110 patients. The large number would seem unusual, but I have charge of the medical department of the Cotton Belt Railroad, and have a great many cases that come in there with symptoms of this condition, and we use it both for experimental purposes and for therapeutic purposes. I think we should be conservative in this treatment, especially from a therapeutic standpoint.

I find that the acute gall bladders probably show better results than the chronic desquamating cholecystitis or the chronic inflammatory type. Where the walls have been permanently damaged with the chronic infection, so far as I am able to tell, there is only temporary benefit. But, in the acute cases where there is pus present and sometimes granular substance which we take as indicating that there are stones present, we find we get remarkable results.

For instance, we had a man who came with a temperature of about 103, brought in on a stretcher. He had had symptoms of jaundice and indigestion and all those things. This was one of the first cases that we started to try it on. We didn't hardly think that the man was in a condition to be operated on at the time. We wanted the symptoms to subside somewhat, and we thought the operation was the inevitable treatment, but we decided to try this Meltzer tube drainage. The tube was passed through the nasal route into the duodenum, and after a short time drained out, I should say, something close to an ounce of pus and what seemed to be blood. There proved to be a small quantity of blood. A microscopical and cultural examination proved it to be pus with a large number of bacil-

lus coli present. This man was in bed unable to sit up at that time. The next day we decided that having had such good results we would probably try it again. We drained him again the next day, and, when I saw him the day following that, he was sitting up by the side of the bed and said he was feeling fine. We decided, since so much had been done, that we would try it again. He was drained about five times in about nine days, and at the end of about twelve days he seemed completely well, and wanted to go home. We let him go. We have had reports on him, and he seems to be completely well.

We have another man under observation at this time—an unusual case—I don't know just exactly what the findings indicate. We drained his gall bladder and invariably got a large quantity of red blood. This man will not consent to an operation. We thought he ought to be operated on and continued draining him, and upon draining him once or twice or three times, he would go home looking fine and feeling fine. This continues for maybe two or three months, then he returns. I don't know what the outcome of that case will be.

Time after time I have had these cases, just as I said before, of the chronic desquamating cholecystitis with a whole lot of epithelial cells present, pus cells occasionally and some different varieties of organisms. The result, as far as we can tell, is only temporary.

In washing out the stomach, I wash out the duodenum, and draining the gall bladder it stimulates the liver, and they say they have remarkable relief from it. Whenever the gall bladder is diseased beyond functioning, I think it should be removed. When we find that there is a stone present, and usually if there is a tendency toward stone formation we find a powder—a fine or coarse black granular powder—in contents of the gall bladder, and this usually indicates stone, so far as operative results are concerned. If stone is there, large or small, the stone should be removed; and if the gall bladder is damaged beyond functioning, I think it should be removed.

I want to suggest to those men who don't use this method that passing the tube through the nose gives the patient very much less discomfort than passing it through the mouth, and they are very much more willing to have it repeated. Some patients, who are very nervous, object to the nausea that it causes, and that is probably justified. But, in passing it through the nostril and in not more than one case in ten do we get any indications of nausea or discomfort whatever.

Dr. Thompson (closing): Just a word about the use of magnesium sulphate by the method as brought out by Dr. Walt. Some months ago I was in St. Louis, and Dr. Gay, of the Washington University, told me that they were using magnesium sulphate and sodium bicarbonate in equal amounts and giving it in teaspoonful doses on an empty stomach in the morning in a quarter of a glass of warm water, and placing the patient on his right side, in the same position we do when we use the duodenal tube. They were getting very satisfactory results. The theory is that the magnesium sulphate passes through the stomach without being changed whatsoever and reaches the duodenum and acts in the same way as when placed there with the duodenal tube. I have tried this method in a couple of cases and found it to work rather satisfactorily. I do not think it is equal to the use of the duodenal tube; but I do think it may be used to supplement that in some cases.

In regard to chronic cholecystitis, it seems to me that if we did not have pretty good evidence of stone present the duodenal tube offers better therapeutic measures than surgery does; maybe not for the cure of the condition, but for the comfort of the patient.

In so many cholecystectomized patients, there is a return of some of the symptoms, and we have to resort then to the duodenal tube. Why not use the duodenal tube all the time and not perform a cholecystectomy unless it becomes absolutely necessary? I can speak rather feelingly on the subject for I have had a cholecystectomy myself, and I know of the experience afterward.

COMMITTEE WORK.

Our friend Bulson, editor of the *Journal of the Indiana State Medical Society*, makes the following comment:

"We are in favor of abolishing all committees except those that show some signs of life. It is the height of absurdity to appoint three to five doctors on a committee and at the eleventh hour have a committee report based on no actual work of the committee, prepared hurriedly by the chairman, and presented at the annual session."

To all of which we say, Amen. On several occasions we have stated that committee appointment is no idle honor. It means work. If you are unwilling to work, then resign. If we cannot have working committees, then let us abolish our committees.—*Journal of the Michigan Medical Society*.

THE ROENTGEN RAY IN TONSILLAR DISEASE.

The cases treated by roentgen-ray therapy on which Francis L. Lederer, Chicago (*Journal A. M. A.*, Sept. 30, 1922), reports were those representing every type of tonsillar disease, and in patients of varying ages. In no case have any marked changes been observed, and only in children with the typical hypertrophied tonsils has even a slight change in size been noted. Patients with infected tonsils with the usual recurrent attacks of tonsillitis were seemingly benefited for a period, only to have a recurrence of the attack. These cryptic tonsils, with the usual infectious material which they harbor, were controlled bacteriologically and found not to have been affected by the roentgen ray. The type of tonsil which has, through disease and age, undergone a fibrosis is but little affected by this therapy. Encouraging results have been obtained not so much objectively as from the alleviation of subjective symptoms, in that type of child whose larynx is filled with lymphoid hyperplasia. The procedure, therefore, is not without some danger.

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Editorials.

THE WAR ON MOSQUITOES.

The headline over a newspaper article concerning an influx of mosquitoes reads as follows: "Mosquitoes Win First Skirmish with Citizens." City Health Officer Thames is quoted as saying that while his department does all possible to exterminate the mosquito pest, "the limited facilities of the department will not enable them to reach every spot."

Neither municipalities, State nor Congress fully appreciate the necessity of adequate appropriations for this work. The United States Health Service has, in the past, assisted the local health officers here and elsewhere, but nowhere has the appropriation sufficed for thorough work. Hundreds of millions are appropriated for "pork barrel" bills whereby the congressman helps to keep up his political fences. Congress is willing to vote hundreds of millions to give subsidies to ship owners. Congress mulcts the people by a tariff bill formulated in the interests of "big business." There are, first and last, many thousands of useless jobs maintained at tremendous cost—all of which help the congressman and senator hold fast to their jobs. But big business manufacturers, sinecure holders and other beneficiaries of such appropriations are in a position to help the congressman who gets these things put through. There is no political significance in health service, and, therefore, the most important factor in the public welfare is neglected all the way through State, city and government legislation.

USELESS NOISES.

In many cities ordinances are enforced to prevent unnecessary noises. The effect of undue and unnecessary noises on the nerves is apparent. One of the nuisances Little Rock continues to permit, is the blowing of raucous whistles in various factories at five, six and seven o'clock in the morning, blown to summon employees to work. Such a method is out of date in an era when every home, no matter how humble, has a clock or watch. To awaken thousands of people at five o'clock in the morning when their usual time of arising is seven or eight, and to again awaken them at six, is an outrage and an infringement on their rights. No factory has the moral right to disturb the slumbers of the whole

population—and perhaps disturb the sick to whose recovery quiet is essential—merely to get their own employees to work on time. No one needs a whistle to summon him to the theater on time or to perform any duty or indulge in any pleasure. Suppose every department store or other concern employing many workers should blow whistles to summon them to work. The community would live in a regular inferno of noise. Yet if one factory has the right so to disturb the people at large, why should not every employer adopt the same plan? We have ordinances prohibiting unnecessary whistling by locomotive engines. Why should not the unnecessary factory whistle also be abolished?

MEDICAL SCHOOL NEEDS NEW BUILDING.

At the Founders' Day celebration of the University of Arkansas Medical School, held in Little Rock, at the First Presbyterian Church, October 7, the need of a new building for the Medical School was stressed by Ex-Governor Charles Hillman Brough, and C. P. Newton, secretary to Governor T. C. McRae, pledged the support of the present Governor to the project. This is an enterprise which should not be allowed to languish. That the present buildings are inadequate and not in keeping with the standing of the college are facts long recognized. The importance of keeping the institution fully abreast of the times, alike in the matter of the right sort of building and modern equipment, is probably underrated by our representatives and State senators. They do not realize that the health of the people of the State is, and should so be considered, paramount to all else. The strength and wealth of a State are in its people. Health and longevity are the factors in that strength. Whatever tends to undermine the public health, tends to the impoverishment of the State. Whatever tends to preserve the public health, alike in sanitation, disease prevention and treatment, is a great factor in the future welfare of the State.

That our law-makers do not fully appreciate these facts is painfully apparent when we consider the difficulty experienced in the past in obtaining much needed legislation and adequate appropriations for public health service. The same is true of the United States Congress. Appropriations for the eradication of cholera in hogs are more easily ob-

tained than appropriations for the preservation of the public health and the welfare of children. One of the important factors is an adequate building in which to house and equip the Arkansas Medical School in which the physicians of the future are to be trained for their great life work. This is a matter which the Committee on Legislation of the Arkansas Medical Society would do well to keep alive and should use its influence and potentiality to push on to actual achievement.

Editorial Clippings.

PREVENTABLE DISEASE AND MAP-CHANGING MEDICINE.

When huge armies were throwing every ounce of their energies against the opposing line, it was constantly realized that the spread of epidemic disease might mean defeat for the affected side. Preventive medicine, in thus being called on to keep every possible man at the front, came into unusual prominence. Foci of contagion existed in various parts of the globe, and the intermingling of peoples, and the crossing and recrossing of seas, invited contagion to spread; but with one exception, the major demons were kept confined to regions in which they commonly prevail in epidemic form. With the World War ended, the sanitary organization was largely dismantled; but the urge for conservation of life and energy did not stop and is still going on. From an examination of developments in the world-wide warfare on disease now being waged by various institutions and agencies, Showalter, in an illustrated article in the *National Geographic Magazine* (September), predicts three announcements of almost unprecedented importance to mankind at no distant date: that (1) yellow fever has been banished from the face of the earth; (2) hookworm disease can be driven from any community which has the will to get rid of it, and (3) malaria can be eradicated from almost any community having enough vital force left to push a thorough yet inexpensive campaign for its extirpation. The widespread incidence of hookworm disease is revealed when it is known that three out of five persons examined in China, three out of four in Siam, and five out of eight in various parts of India are so afflicted. Similar conditions prevail in Brazil, Columbia, Central America, the West Indies and elsewhere. How success-

ful a campaign against this disease may be was shown in Richmond County, Va., where the world-wide fight against hookworm had its inception. About thirteen years ago, when the eradication work began, 82 per cent of the people of Richmond County had this disease. A survey a few years later showed that only 35 per cent had the disease; a more recent survey reduced it to two per cent, and in 1922 there is apparently not a single person in the county with symptoms of hookworm disease.

Malaria, which, it has been claimed, was largely responsible for the passing of the "glory that was Greece and the grandeur that was Rome," today still lays a heavy hand on millions of people who dwell where it prevails; and yet it costs only one-fourth as much to eradicate the disease as to permit it to continue. Simple drainage, filling pits and shallow pools, channeling streams, clearing the margins of streams and ponds, removing obstructions, turning in the sunlight, oiling, using top minnows, and quinine are the measures which, when applied with a will, produce astonishing results in malaria-infested regions. With these weapons, malaria was virtually driven from fifty-two towns in ten Southern States at an average cost of 78 cents per capita. Similar measures have been successful against yellow fever, and few foci of that disease now exist.

Sanitary science thus offers hope for freedom from three plagues of man. The plans of campaign for still broader work are well mapped out. They await the officers who will direct the forces in the fight. The number of public health leaders is inadequate now, and calls for trained sanitarians keep coming from all parts of the world. To meet this demand, eleven American universities, and schools in Canada, South America and Europe, have established courses in public health and hygiene. Some few years must elapse before the effect of this training will be fully appreciated, but the forces are mobilizing now for the final successful campaign against several transmissible diseases.—*Jour. A. M. A.*, Oct. 7, 1922.

Abstracts.

TREATMENT OF INDUSTRIAL ACCIDENTS TO THE KNEE-JOINT.

A thorough knowledge of the complex anatomy and function of the joint, R. Wallace Billington, Nashville, Tenn. (*Journal A. M.*

A., Oct. 7, 1922), states, is a *sine qua non*. There is a close analogy between the abdomen and the knee in many respects, and those who undertake the treatment of knee cases should learn to make a careful and thorough study of the knee and to recognize the many special points relating to its numerous structures, just as they would do in intra-abdominal conditions before arriving at conclusions as to diagnosis and treatment. Likewise, a carefully and wisely taken history may be even more important than the physical examination, though, of course, both are important. Contrary to former belief, the knee joint cavity has almost if not as great a natural resistance to infection as the abdomen, an important difference being that the latter has greater capacity for localizing any infection that may occur. Neither cavity can be drained effectively by tubes or wicks, a fact that explains the serious results in septic knees. Furthermore, the knee may be affected by a considerable variety of lesions, and it is sometimes difficult or impossible to make an exact diagnosis; exploratory arthrotomy is occasionally justifiable, as is exploratory laparotomy. Knee surgery is a very distinct field demanding special training and experience. The after-care in many of these cases, with their complex problems of splinting and the tedious details of physical therapy, is even more important than the operative procedures, so far as restoration of function is concerned. Certainly no surgeon without special training in this field of very technical work and the necessary equipment, including a closely supervised physical therapy department, can get the best results in these or other joint cases. The insurance companies are slowly but surely beginning to recognize the economic value of such specialized treatment.

STUDY OF EXOPHTHALMIC GOITER AND THE INVOLUNTARY NERVOUS SYSTEM.

Leo Kessel, C. C. Lieb and H. T. Hyman, New York (*Journal A. M. A.*, Oct. 7, 1922), define exophthalmic goiter as (1) a clinical collection of sympathomimetic symptoms (tachycardia, tremor, exophthalmos, sweating, asthenia, polyrrhea [diarrheal] etc.), associated with (2) metabolic upset (elevated basal metabolism), and usually accompanied with (3) hyperplasia of the thyroid gland. No one of these three components is pathognomonic. Elevations of basal metabolism may

occur in other conditions dissociated from goiter or alterations in the involuntary nervous system. Hyperplasia may also occur dissociated from alterations in the involuntary nervous system or elevation of the basal metabolism. Sympathomimetic manifestations may be present with or without hyperplasia of the thyroid gland and with a normal basal metabolism. It is to the last group of symptoms that the authors apply the term "autonomic imbalance." This syndrome differs from exophthalmic goiter only in that the basal metabolism remains normal. Patients with active exophthalmic goiter usually give a history of autonomic imbalance, and those with arrested exophthalmic goiter differ only in presenting a history of crisis. The transition from autonomic imbalance to exophthalmic goiter occurred in a patient under observation. This led the authors to believe that disturbance of the involuntary nervous system plays an important role in the causation of exophthalmic goiter. The fact that stimulation of the involuntary nervous system by epinephrin produces an elevation of the basal metabolism and that this increase is independent of the thyroid gland suggested a more complete study of the involuntary nervous system, especially the thoracolumbar division. Since it is admitted that epinephrin acts only on the myoneural junctions of the thoracolumbar division, the sensitiveness of these patients to the subcutaneous injection of epinephrin localizes the abnormality in the myoneural junctions.

Personal and News Items.

Dr. L. M. Warden has moved from Bonanza to Huntington.

Dr. W. L. Holt (Harvard) has been appointed Epidemiologist for the Arkansas State Board of Health.

Dr. F. W. Carruthers, Little Rock, has severed his connection with St. Luke's Hospital, and has opened offices in the Exchange National Bank Building.

An announcement of the "Cancer Week," November 12-18, has been issued by the American Society for the Control of Cancer. The program of activities for Arkansas will be announced later in the lay papers.

"Founders' Day" was observed by the University of Arkansas School of Medicine,

Little Rock, October 7, 1922. Speakers were: Dr. Morgan Smith, Mr. C. P. Newton, Mayor Brickhouse and Ex-Governor Brough.

Physicians visiting in Little Rock this month include G. S. Brown and J. M. Muse, Conway; R. C. Dorr, Batesville; L. E. Moore, Searcy; A. S. Buchanan and O. G. Hirst, Prescott; Lloyd Thompson and W. F. Simpson, Hot Springs; F. T. Murphy, Brinkley.

CHATTANOOGA MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

The Southern Medical Association will hold its sixteenth annual meeting in its birth city—Chattanooga, Tennessee, "The Dynamo of Dixie," Monday, Tuesday, Wednesday and Thursday, November 13-16, 1922. Dr. Scale Harris, Birmingham, Alabama, President.

This meeting will be made up of eighteen sections and conjoint meetings as follows: Section on Medicine, Section on Pediatrics, Section on Neurology and Psychiatry, Southern Gastro-Enterological Association, Section on Radiology, Section on Dermatology, Section on Surgery, Southern States Association of Railway Surgeons, Section on Urology, Section on Orthopedic Surgery, Section on Obstetrics, Section on Eye, Ear, Nose and Throat, Section on Public Health, National Malaria Committee, Conference of Malaria Field Workers, Southern Hospital Association, Conference on Medical Education and Southern Association of Anesthetists. In these meetings every phase of medicine and surgery will be treated. The programs are unusually fine this year.

Dr. E. D. Wise, City Health Officer of Chattanooga, will deliver the address of welcome, which will be responded to in behalf of the Southern Medical Association by Dr. W. S. Leathers, State Health Officer of Mississippi, Jackson Miss. Dr. C. C. Bass, Dean of Tulane Medical College, New Orleans, will deliver the Oration on Medicine; Dr. Hubert A. Royster, Raleigh, North Carolina, the Oration on Surgery; and Dr. S. W. Welch, State Health Officer of Alabama, Montgomery, Alabama, the Oration on Public Health.

Of unusual interest will be the joint dinner session of the Section on Surgery and the Section on Radiology Tuesday night. Dr. George W. Crile, Cleveland, Ohio, will represent the Section on Surgery, and Dr. George W. Holmes, Massachusetts General Hospital, Boston, the Section on Radiology. All physi-

cians and surgeons are cordially invited to this dinner session.

Entertainments include a President's reception with dance on Tuesday night and a dance and get-together meeting on Wednesday night. On Tuesday and Wednesday elaborate entertainments have been provided for the wives of the physicians, including sight-seeing trips over the historic points of interest, luncheon at Signal Mountain Inn, theater parties, etc. The Chattanooga Committee earnestly desires a large attendance of ladies.

For those who play golf tournaments are being arranged. Chattanooga has several wonderful golf courses.

Scientific exhibits bid fair to be of unusual interest. In the health exhibits malaria control work will be featured. In connection with the scientific exhibits there is expected to be a moving picture theater at which scientific films will be featured all during the days of the meeting.

Chattanooga excels in beautiful scenery and in points of historic interest. Lookout Mountain, Signal Mountain, Missionary Ridge and the historic battle fields alone are worth a trip to Chattanooga.

The Hotel Committee promise comfortable accommodations for all who attend.

Special reduced railroad rates have been granted by all railroads on the certificate plan. The members of the Association will receive without applying for them a certificate entitling them to reduced rates. Any doctor who is a member of his State and county medical society, although not a member of the Southern Medical Association, who desires to attend this meeting can have the benefit of these reduced rates by requesting a certificate from the Association office.

Propaganda for Reform.

HELIO THERAPY: The action of far ultraviolet light on normal tissue and the action of near ultraviolet light under certain pathologic conditions have been investigated enough to show that there are well defined effects due to light, closely related to the physiologic results of exposure to radium and the roentgen rays. Recently, Kramer, Casparis and Howland have again demonstrated the healing of the rachitic process in the bones of rachitic children through systematic exposure to the rays from the mercury vapor quartz lamp. The healing of the bones occurred at about the same time that it does after the administration of cod liver oil. The

work of Finsen in the treatment of lupus vulgaris emphasizes the importance of considering a diversity of forms of radiant energy in skin affections. In tuberculosis, especially surgical tuberculosis, heliotherapy has long had advocates. Light of short wave length, which is known to have marked bactericidal effects, may not be without salutary influence in the treatment of wounds. Artificial lights, if glass covered, are therefore harmless and therapeutically weak. Sunlight rarely contains enough far ultraviolet rays to produce injury. Consequently, heliotherapy that demands highly potent effects must look to artificial sources of radiation. The quartz mercury arc and bare metallic arcs are known to belong in the potent class, and, it is to be remembered, may be extremely injurious, so that the eyes should be protected from them. (*Jour. A. M. A.*, Sept. 2, 1922, p. 827.)

INTRAVENOUS MEDICATIONS: There are serious limitations to intravenous medication which are likely to be forgotten or overlooked in the enthusiasm for a promising procedure. They involve both disappointments and dangers. These were reviewed by Carl Voegtlin before the Section on Pharmacology and Therapeutics at the St. Louis session of the American Medical Association. Not the least in importance are the difficulties of technic which form a stumbling block for all too many physicians. Voegtlin pointed out that the chemical composition of the blood and its physicochemical properties, such as osmotic pressure, hydrogen-ion concentration and colloidal state, are maintained with remarkable constancy and appear to be essential to physiologic well being. A sudden change in reaction, the production of precipitates and subsequent thrombosis in vital organs, the overwhelming of sensitive tissues, such as the cardiac and nervous structures, with high concentration of potent drugs, are a few illustrations of the untoward possibilities in a procedure that often means "more haste and less speed." (*J. A. M. A.*, Sept. 2, 1922, p. 828.)

The biggest thing about big success is the price; it takes a big man to pay it. You can measure in advance the size of your success by how much you are willing to pay for it; not in money, but in the time, thought, energy, economy, purpose, devotion, study, sacrifice, patience and care that a man must give to his life work before he can make it amount to anything.—*Osler*.

County Societies.

BENTON COUNTY.

(Reported by C. A. Rice, Sec.)

The Benton County Medical Society met in regular session at Bentonville, Tuesday, September 12, 1922.

Called to order by President McNeil. Present: Cargile, Clegg, Clemmer, Cox, Gillen, Guy Hodges, T. E. Hodges, Hughes, McNeil, Montgomery, Powell, Ramsey, Rice, Scott, Smiley, Steele, Thompson and Wilson. Dr. Geo. V. Poynor, of Southwest City, Mo., was a visitor at the meeting.

A number of interesting case reports were submitted, which elicited general discussion. After routine business was transacted the meeting adjourned. Three new members have recently been enrolled.

LAWRENCE COUNTY.

(Reported by A. J. Clay, Sec.)

The Lawrence County Medical Society met in regular session October 4, 1922, at the Methodist Church, Hoxie.

President Hatcher called the meeting to order.

The essayists for the afternoon were not prepared, so the time was taken up in reporting clinical cases. Among them, Marasmus, Twins Superfetation, Gunshot Wound of Chest and Abdomen.

Dr. Earl Thomas reported a case of anteriopoliomyelitis, especially stressing early diagnosis of same.

The building of a modern hospital was discussed. It was decided to have a meeting in the near future with the business men to perfect financial arrangements.

Present, Clay, Guthrie, Hatcher, Henderson, Hughes, Robinson, Swindle, Thomas, Townsend and Warren.

Book Reviews.

The Healthy Child from Two to Seven.—By Francis Hamilton MacCarthy, M. D., Assistant Professor of Diseases of Children, Boston University. Published by The MacMillan Company, New York. Price, \$1.50.

This is a handbook for parents, nurses and workers in Child Welfare. It contains information pertaining to the principles of nutrition and physical care, including sections on Child Nature, Training and Education

and Safeguarding the Nervous System during the preschool years.

Psychoanalysis: Its Theories and Practical Application.—By A. A. Brill, Ph. B., M. D. Lecturer on Psychoanalysis and Abnormal Psychology, New York University. Third Edition, thoroughly revised. Octavo of 468 pages. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$5.00 net.

The author's object is to present in one volume the practical application of Freud's theories. He deals with the neuroses as entities instead of treating symptoms, as do hypnotism, suggestion and persuasion.

Much new material is found in this edition, and a new chapter on Paraphrenia, which deals with a class of rather mild psychoses.

Principles of Hygiene.—A practical manual for students, physicians and health officers, by D. H. Bergey, M. D., Dr. P. H., Assistant Professor of Hygiene and Bacteriology, University of Pennsylvania. Seventh Edition, thoroughly revised. Octavo of 556 pages, illustrated. Published by W. B. Saunders Company, Philadelphia. 1921. Cloth, \$5.50 net.

This book gives to the students of medicine the acquirement of a knowledge of those principles on which modern hygienic practices are based. It shows the general principles upon which the health officer and the physician work in their respective capacities in dealing with conditions which are detrimental to health.

Infant Feeding.—By Clifford G. Grulee, M. D., L. L. D., Associate Professor and Acting Head Department of Pediatrics at Rush Medical College. Fourth edition, thoroughly revised. Octavo of 397 pages, illustrated. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$4.50 net.

This book presents our knowledge of the scientific processes which underlie infant feeding and brings out the practical application in such a way that they can be grasped by one no more familiar with the subject than the student and general practitioner.

Diseases of the Skin and the Eruptive Fevers.—By Jay Frank Schamberg, M. D., Professor of Dermatology and Syphilis, Graduate School of Medicine, University of Pennsylvania. Fourth edition. Thoroughly revised. Octavo of 626 pages, 265 illustrations. Published by W. B. Saunders Company, Philadelphia. Cloth, \$5.00 net.

We find this volume has been revised showing the recent advances in dermatology and syphilis. Dr. Schamberg has given special attention to symptomatology, diagnosis and

treatment, and, with the numerous illustrations, should prove quite useful to the student and general practitioner.

American Illustrated Medical Dictionary (Dorland).—A new and complete Dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with new and elaborate tables. Eleventh edition. Revised and enlarged. Edited by W. A. Newman Dorland, M. D. Large octavo of 1,229 pages with 338 illustrations, 141 in colors. Containing over 1,500 new terms. Published by W. B. Saunders Company, Philadelphia. Flexible leather, \$7.00 net; thumb index, \$8.00 net.

This book presents in a convenient size, an up-to-date medical dictionary. The definitions are clear, concise and sufficiently comprehensive to meet every requirement.

Papers from the Mayo Foundation.—For Medical Education and Research and the Graduate School of Medicine of the University of Minnesota, covering the period of 1915-1920. Octavo volume of 695 pages with 203 illustrations. Published by W. B. Saunders Company, Philadelphia, 1921. Cloth, \$10.00 net.

The articles presented in this issue should be of interest both to clinicians and investigators. Nearly all were originally in the form of theses presented by graduate medical students in the Mayo Foundation and the Medical School of the University of Minnesota, in partial fulfillment of the requirements for the degree of Master of Science or Doctor of Philosophy in various preclinical, as well as clinical fields.

The Principles of Therapeutics.—By Oliver T. Osborne, M. D., Professor of Therapeutics, Department of Medicine, Yale University. Octavo of 881 pages. Published by W. B. Saunders Company, Philadelphia, 1921. Cloth, \$7.00 net.

Dr. Osborne has written this book to present the data necessary for the advanced student to well understand the objects of scientific treatment, the rational use of drugs, and the physical methods used in the treatment of diseases.

The contents are divided into fifteen parts. The last three are as follows: "Practical Advice to Young Physicians," "Medical Laws and Departments of Health," "Medical Ethics."

Ophthalmoscopy, Retinoscopy and Refraction.—By W. A. Fisher, M. D., R. A. C. S., Chicago. Professor of Ophthalmology, Chicago Eye, Ear, Nose and Throat College. With 248 illustrations

including 48 colored plates. Published by Dr. W. A. Fisher, 31 North State Street, Chicago.

It is Dr. Fisher's opinion that every medical man should be able to make diagnosis with the ophthalmoscope, also correct the common errors of refraction, such as opticians do. In this book is found instructions on these two subjects, and it is the author's opinion that by following his suggestions that medicine would come back to its own, and optometry would be lessened.

Obstetrics for Nurses.—By Joseph B. DeLee, M. D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. New (6th) Edition, Entirely reset. 12mo of 525 pages, with 245 illustrations. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$3.00 net.

This book although intended for nurses, should prove of value to medical students.

It has reached its sixth edition and has been fully revised, and brought up to date. Several more pages are added to the operation of Cesarean Section. The latest modifications of its practice are discussed.

A Primer for Diabetic Patients.—A Brief Outline of the Principles of Diabetic Treatment, Sample Menus, Recipes and Food Tables. By Russell M. Wilder, M. D., May A. Foley, and Daisy Ellithorpe, Dieticians, the Mayo Clinic. 12mo of 76 pages. Published by the W. B. Saunders Company, Philadelphia, 1921. Cloth, \$1.50 net.

This little book outlines the principles underlying the dietary treatment of diabetes. With the exception of a few nervous patients this guide should be in the hands of every diabetic patient.

Skin and Venereal Diseases.—Edited by Oliver S. Ormsby, M. D., and James H. Mitchell, M. D. Volume VII. The Practical Medicine Series. Price, \$1.75.

Nervous and Mental Diseases.—Edited by Peter Basso, M. D. Volume VIII. The Practical Medicine Series. Price, \$1.75. Series of eight volumes, \$12.00. Published by The Year Book Publishers, 304 South Dearborn Street, Chicago.

These volumes constitute two of the series of eight, issued at monthly intervals, covering the field of medicine and surgery.

An Essay on the Physiology of Mind.—By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelphia. 12mo of 150 pages. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$1.75 net.

This is an interpretation based on biological, morphological, physical and chemical

considerations. It shows those peculiarities of structure of the living protoplasm which cause the arrest of certain, a very limited number, of the incident forces of the environment; protoplasm as a whole is "transparent" to and remains totally unaffected by an infinitude of forces active in the universe.

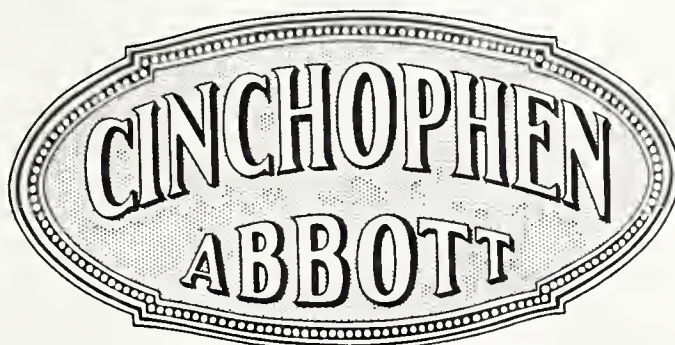
The author presents the problems of the reception and transmission of the forms of energy which protoplasm is capable of receiving, the conversion of these incident forces into other forms, and the transmission and the release of energy by the protoplasm itself.

A BRITISH ESTIMATE OF CHIROPRACTIC AND OSTEOPATHY.

We all have burdens to bear. In Great Britain, as the *British Medical Journal* points out, the medical profession had to contend with the "medical clubs," but "the campaign against cheap medical schools and inferior medical qualifications * * * has been unnecessary in the British Empire." Parenthetically, our British colleague credits the

American Medical Association for the complete victory which now, it hopes, has been gained over these American evils. With an eye to the future, the British journal now considers the medical cults which seem to be firmly established in America. It appears that a host of publicity agents and advertising experts has descended on London in a sporadic raid for the establishment of osteopathy. The *British Medical Journal* publishes an analysis of the report of the Massachusetts Medical Society on the principles underlying these manipulative cults. It is unnecessary here to repeat the fallacies pointed out or to show the absolute lack of any scientific evidence for the systems of therapy built on misconceptions. Here, however, is the estimate of our British confreres on these massotherapists and spinal manipulators:

It may appear to observers at a great distance that osteopathy and chiropractic are little more than terminological adaptations of bone-setting, with the site of operation cleverly transferred from the knee or the ankle, where results (if any) can at least be seen, to the backbone, where they cannot.—J. A. M. A., Oct. 14, 1922.



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1922

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Original Articles.

FIGHTING THE FADDISTS.*

W. T. Wootton, M. D.

Hot Springs National Park, Arkansas.

It seems perfectly hopeless to expect the present generation of "grown-ups" to improve their knowledge of anything concerning health or those things which enter into the preservation or restoration of health.

From our forefathers down, the "mysterious" in medicine has been emphasized, indeed, at times it has been so insistently dwelt upon that the "medicine man's" personality became as potent as his nostrum and when it became no longer fashionable to be a witch his "hokus-pokus" was carried on under the guise of eccentricity. To be queer added much to the charm of his ministrations, the whole idea seemingly being to keep the patient's mind diverted from the draught that was being brewed and fasten it on the powers that were mysteriously being called into play, sometimes through the medium of an entanglement of words, at other times by "many powerful strokes of the arm."

This is the heritage from out of which we would lift the science of medicine. Rid ourselves of much that is buncombe before we attempt to crush out all that the faddist offers. Sugar coat our deficiencies and shortcomings as we may, but they remain as vulnerable spots when we go gunning for the other fellow.

Coming down through the history of medicine there is much to be proud of; marvelous advances; practicable and life saving. There are names that stand out like beacon lights. But not all in the past is to our credit, much we might well forget.

Hygiene and physiology as offered to the children of our schools today is little better than farcical. Well, indeed, may you say "a little learning is a dangerous thing," but this is even "too little" to be dangerous. I cannot think it to our credit as physicians, humanitarians or business men to keep the children of today—the men of tomorrow—in gross ignorance of their body; of the foods entering therein; of the chemicals we ask them to swallow, on faith. If we expect them to judge fairly between the merits of a medical man and a chiropractor or a "Thought Magnate" is it not just that the facts be placed fairly before them? I am not afraid of their judgment when once they know the truth of both sides. But we ask them to stand by the family physician because of the past, on blind faith, just as I was raised to stand by the Democratic party. The whole family did it because it was the thing to do. Would it be amiss to have the laity know the location and function of the organs of the body; know the tissues composing them; how dependent one may be on another; know the correlation as a whole? Would you keep your boy in baser ignorance of that noblest of machines, his body, than of his tin automobile?

Just so long as a total lack of knowledge of all those things pertaining to the body is fostered in the laity by our profession, just so long will the laity be the dupes of Chiropractors, Osteopaths, Thought Scientists, other faddists and unscrupulous street corner "doctors." Shall we consider the "mote" in our own eye ere we cast out the "beam" from our neighbor's?

I have had patients recover from illness when their daily ration of medicine consisted of a few grains of malted milk in a capsule and a sweet tasting tonic. Did I proclaim to that patient that I held a "thought" over him? Though I knew the patient's normal resistance would shortly overcome the in-

*Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

vasion, did I dare tell him or his family so, or tell them no specific medicine was required? The laity's idea of our method today is that it is the medicine we give and the medicine only that cures and when it fails to bring relief they very naturally seek some other method. Yet, when that same patient's neighbor allows a "scientist" to pray him through a similar illness, my patient most loyally endeavors to have my services supersede the "Thought man," and I feel great pity for his lack of intelligence when he doesn't accede. Now, wherein lies the difference? Is the one family one bit better able to judge of their actual needs than the other? I think I sold my personality to my patient, not my knowledge of physie. If we are to educate the masses out of one fallacy, for God's sake let's go all the way and get rid of those we of necessity make use.

Last year there were sixty million dollars spent in this country for patent medicines. No figures are available, but I venture the assertion that another sixty million were spent for medicines we prescribed with full knowledge that no real benefit would accrue other than the passing of time. We entered their minds on the bottle and mother nature did the rest. Why do we have to lend ourselves to this sort of thing?

Is it not that the fallacy of complete dependence upon drugs has become so deep rooted in our patients that we dare not argue the question with them when they are sick and have no opportunity when they are well, consequently follow the beaten path? Certainly such practice does not tend to raise our professional services in our own esteem.

Is it too much to say that the need for the doctor is ninety per cent diagnosis and ten per cent physie? Please understand me to mean that a case of pneumonia, for instance, must be diagnosed each and every time you see the patient, and the same applies to many other acute illnesses and it is in such extremities that the physician can be of greatest help; can guide his patient over the dangerous shoal by a deft touch here and another there.

In the realms of psychiatry your ease may remain diagnosed "until death do us part"; but not so in the vast majority of conditions we are called on to see. Why can we not be medical advisors in fact and not have to rely upon mysticism to hold whatever regard our clientele may have for us? Whenever

there is a change of medical advisor or a consultant called in he may possibly agree in the diagnosis (you know the faint praise that utterly damns); but to show his superior knowledge and to make the family feel they did the right thing in calling him, the line of treatment must be changed, possibly so slightly as to meet no objection from the attending physician, yet enough to plant a doubt in the minds of those most concerned and least able to understand. Do not the laity say that two heads are better than one, "they can think of more things to do," not better. As small as these things seem to us, because familiarity has bred contempt or forgetfulness, they lay the foundation for distrust of the profession as a whole and the entering of the faddist into our chosen field.

One channel and one only can I see through which we may hope to gain that respectable and eminent position as men of science that we think we deserve, and that means a long and tedious journey; *i. e.*, the education of the child.

We have fussed and fumed; heaped ridicule upon faddist and "faddicee"; we have written volumes and talked loud and long; investigated, legislated and become satiated with these various offenders and they grow steadily in our midst. I believe, gentlemen, the truth about these things properly placed will do more to kill them than all the ranting tirades of our entire profession. Can we properly place the truth? Yes, by placing it before the coming generation, the child of school age in America. You cannot reach the parent except in isolated instances, but the entire population of tomorrow is attainable if we will make the effort.

The plan, the "Arkansas Plan," is to begin with gratuitous lecture periods in every high school in every county in the State. Each County Society should be responsible for the personnel of the lecturers within its boundaries and the extent of the subjects to be taught. It must come from organized medicine. Have the youngsters of this State taught something of themselves, enough to know that backache is not the first symptom of Bright's Disease; that the cranial nerves do not come from the spinal cord; are not offended by the shimmying or dislocation of the playful vertebrae, and therefore little may be expected from chiropractic adjustment in blindness; that dislocation of a vertebrae sufficient to press on a spinal nerve

should show in a radiogram; that vomiting of a pale lemon-colored, normal gastric juice does not mean bile, or that they suffer from "biliousness." Have them know that such vomiting may be the first symptom of some serious condition, and that an expert physician should examine them in order to forestall trouble. They should learn that the early advice, when ailing, is usually preventive of an illness and not necessarily a sentence to serve so many days of drugging. Have them know the fallacies thrust out to them in patent medicine advertisements, that they might read and not be afraid. Have them know that "Purgen's Tablets," "Nucolax," "Phenolax," "Thallet's" or "Ovalax" mean Phenolphthalein only; that "Syrup of Figs," "Syrup of Pepsin," "Gin Lax" or "Castoria" mean Senna; that "Plantation Chill Tonic," "Grove's Chill Tonic," "Oxidine," "666" and dozens of other chill remedies mean quinine in small doses, when they probably need large ones over a long period and at lessened cost; that dozens of quick selling remedies of various novel names, for which they pay enormous prices, mean only Glaubers or Epsom Salts.

Have you not noticed time after time that your patient would seemingly thrive just so long as in ignorance of the medicine he was taking and lose interest or faith when he learned that it was nothing new or mysterious? If the unknown in our practice is to remain the potent factor, can we blame them for accepting other unknown and queerer beliefs?

I would not have them taught that there is no virtue in massage, Osteopathic treatment or even Chiropractic adjustments, but I would so define these maneuvers that they would be limited to their usefulness, after a careful diagnosis by a physician. It is our aim to prevent the abuse of these fads and not to exterminate them.

I can see no reason for not teaching the coming generation very frankly just what the health problem is. We know the fallacies of the various pathies because we know their pretense. Why not trust the judgment of the youth of our nation when they have the facts truthfully before them? And, gentlemen, I want to emphasize that word "truthful," for we cannot afford the slightest exaggeration; we cannot give our detractors an opportunity to show false our statements with

the added argument that it is merely an attempt to discredit them for our personal aggrandizement. I believe the truth concerning medicine properly presented to the people of this country will result in the disappearance of most of this "bunk." The only way I see to get it before the people is to get it to those in school and keep it before them in the future. Public opinion or thought is molded for the "grown-ups," molded into many and varied forms. If we want to influence the future molding let's begin with the youth and give them a clean, clear insight into their bodies and what we try to do for those bodies. The number of facts that should be presented to these children is legion, but it would mean a better understanding between physician and patient.

A criticism may well be made that to teach children a degree of anatomy and physiology and the names of drugs may lead to self medication, but this does not happen with the nursing or medical fraternity.

Certainly the knowledge possessed by one doctor does not prevent him from seeking aid of his confreres at the first intimation of personal illness.

I think it would possibly do away with some unnecessary calls that we now make, but the service we could render would be much more valuable to our patients—charged for accordingly—and leave more time for important and necessary things.

If the profession of every town will make the request of the school board for sufficient time to present this matter before each class, I believe that in the course of a short while it will become a part of the standard education of all children and arranged for as all other branches are. I am not blind to the fact that every faddist in the community will endeavor to keep our teachings from the youth of the land and that is part of our diplomatic fight; to present it over their protests. We may even find the hand of the patent-medicine man raised against us—if he is paying for enough space in the local newspaper. Now, men, what are we going to do, continue to halloo our heads off and do nothing, or take off our coats and straighten this matter out? This is a clean fight, a good fight, if you love a fight; so let's go to it, even though we have to go many rounds to secure a final knockout. The end is worth it and the world will be better by reason of our having lived in it.

DISCUSSION.

Dr. T. B. Bradford (Brinkley): Last fall I made a talk on a very "peculiar" subject, before a body of prominent surgeons, "Nicotine as it affects VISION"—and when I was through, a doctor, well known throughout the United States, said: "Dr. Bradford has my sympathy. He is 'John the Baptist in the Wilderness.'"

And I say to Dr. Wootton that when this session is closed there will possibly not have been read a better or more practical paper than this one, which he has just read; but that the effects will be about like pouring water on "the duck's back."

He is like the doctor said of my effort, a "John the Baptist in the Wilderness." I thoroughly enjoyed the paper. I have practised medicine for nearly twenty-five years, and have lived in one town nearly all that time, and I do not believe we have had a single doctor who has made it his business to go to the schools and discuss the things that the doctor has brought out in his most excellent paper. I have been to many of the up-to-date and better towns of Arkansas and when you go to the schools and ask if there is regular attendance there of medical men, the answer is invariably, "No, we do not have them come. They do not come. We have not had a doctor this session."

It is surprising that medical men over the State do not realize the importance of talking these things to the boys and girls, who are to be the men and women of the morrow. The doctors of a good live town or community ought to single out one of the profession or take a month about, to go to the schools and talk that which will be beneficial to future generations.

Again, I repeat, the doctor has my profound sympathy.

Dr. H. Thibault (Scott): There is another poor fellow who has my sympathy, and that is the poor little school child. Everybody that has anything to hang up somewhere brings it to the schools and hangs it on to the children. Everybody that wants a subscription to raise a monument to a dead jail bird and every fellow whose cigar has made him sick comes to the school and asks permission to lecture the small children. If we would teach these poor little fellows, with nothing more than human brains, one-half or one-twenty-fifth or one-one hundredth of the things that are suggested to us to hand to them, they wouldn't be children any more. They would be so far ahead of the adults that we would have to sit up every night trying to keep up with them.

Most of the doctors that are practising medicine are so busy trying to do their duty by their patients that they have not more than three or four days out of the week that they could give to lectures to school children (laughter) and interrupting their fundamental studies. They have to work a little bit. There's a few of them that don't. Now, I occupy a unique position. I don't lecture to school children because I have had the misfortune of being one of the cogs in the wheels of the school board for about six or eight years; but I do have something else to do. Every two or three days somebody calls me up over the phone and says, "Doctor, can't you arrange an hour or two that Miss So-and-So or Mr. So-and-So might tell about a certain movement or something else to the school children?" They call me up and say, "Doctor, of course you know what the Moody Society is," or some other

society, which turns out to be nothing but a publishing house. "Now, Miss So-and-So will be in your town on a certain day and wants to talk to the school children," and if you let Miss So-and-So get in there, she will sell them a book. She will have the whole school taking up a subscription to buy a book. One of the hardest jobs that the school director has is to keep the other fellow out of school, giving the school teachers an opportunity to teach one or two or three days out of the week. (Laughter.)

Now, I believe in an ordinary amount of instruction along hygienic lines. It is necessary that every child should have it, and that is the only time you can impress them with these fundamental ideas of keeping clean. The only lecture I ever gave on the subject in school was a very simple one, and that was on putting things in their mouths. I went into a school room one day and found some of the children had their knees in their mouth, some had a desk in their mouth, and some of them had a box in their mouth, and pretty nearly all of them had their pencils in their mouth. When one class left their seats and went to the blackboard and had the chalk in their mouths, another class came along to the seats and had those same articles these other fellows had had in their mouths, in theirs. Of course, being a doctor, I had something to say about this interchange of articles and putting them in their mouths. But the fundamental rules of hygiene, what the child can grasp, are necessary in schools, in spite of what Dr. Wootton said in his paper. The textbooks used in the schools today have gone further away from the anatomy and physiology that the child cannot understand by giving him simple rules in regard to the fundamental ideas of germ life and how they are transmitted from one child to another, and they are getting better education along these lines than they ever got before. At the same time, a great deal is to be desired.

Now, as to the choice of physicians or the practice, I don't think we are going to do very much for the medical profession along that line. Humanity has suffered a whole lot at the hands of the regular physician in the last four thousand years and they are going to suffer a lot more at the hands of the medical profession and at the hands of other professions. They put up with a lot of us, they put up with a lot from us back in that stage that Dr. Wootton mentioned in the first part of his paper; they stood for it, and they are going to stand for a good deal more. It is due to ignorance, and I don't believe that we are going to be able to evolve this state of mind where they are capable of choosing in any short time. There will be a good many of these evangelists in the wilderness and elsewhere before we succeed in reaching that millenium that we all hope for. (Applause.)

Dr. Frank B. Young (Gering, Neb.): I want to tell a couple of stories in regard to something touched on by Dr. Wootton in his paper, to illustrate the tendency of the human mind.

Some few months ago I was called to a neighboring town in consultation with Dr. Watson to see a man having convulsions. He had been a strong, healthy, well man, taken down with a sudden onset. We did a lumbar puncture and demonstrated meningitis. I went home intending to come back the next day if the doctor called me. I didn't hear anything from the doctor. Along during the evening I called him up, and he said, "That patient is still alive. He hasn't

had any more convulsions since we gave him the lumbar tap," but when we demonstrated that it was a spinal disease they called in a chiropractor because he was a "specialist in spinal diseases." Some of those fellows believe that chiropractic cured that fellow. We find them so densely ignorant, so hard to penetrate, that we can't get away with the educational campaign that our regular medical profession has instituted. You cannot overcome and get away with that intense newspaper advertising that is put out by the various unethical schools.

Another thing, the medical profession in itself is inclined to take up fads. Each one of us has some little fad that we are always ready to poke down the other fellow's throat.

Now, the unfortunate thing about teaching hygiene in the public schools is that much that is taught there is erroneous. You know it is not true. Go back and read your school physiology from which pupils are taught these days, and you will see the most ridiculous statements in it. Now, there is no use in cramming these things into the school children and expecting them to believe them and expecting to get results therefrom.

My other little story is this: A good many years ago, when my kids were small, the little girl, who is older, and who had begun to study physiology, got as far as the use of tobacco, and had gone over forty or fifty pages of the book, the other one hundred pages being given over to the use of alcohol. The use of tobacco was her subject at that particular time. She took her small brother, some few years younger than she was, out into the back yard and sat on the back step, and she gave him a lecture on hygiene. She said, "Buddy, I don't want you to ever use tobacco, because, if you do, it will stunt your growth. That's what the book says." He looked around and said, "What does 'stunt' mean?" "Well, you won't grow up to be a full-grown man." The kid studied a minute and said, "Well, I don't know about that. Dad has used tobacco ever since he was eight years old." (Laughter and applause.)

Dr. W. T. Wootton (in response): I just want to call attention to one of the statements that Dr. Thibault made, and that is the utter rot of medical talks that are given in the schools. I think that is about the worst loss of time I know of. My idea in suggesting this plan was to take over the periods in which the seventh to the tenth grades are now taught, and not have them taught physiology and anatomy by teachers that know less than the children, but have it started out by physicians who can really give these children a foundation. My belief in educating people and the good that comes from it arises from the knowledge of the way we practised medicine twenty-five years ago. Gentlemen, we can't practice medicine that way today. Our patients have been taught to expect more. They have learned, passing through various clinics, that certain things have got to be done and they demand it when they come to us now, and I believe that the kids of this country should be taught something about what we are supposed to do for them and what the other fellow is not supposed to do for them. (Applause.)

PNEUMATURIA, COMPLICATING DIABETES MELLITUS AND DIVERTICULUM OF THE BLADDER.*

Frank B. Young, M. D.
Gering, Neb.

Mrs. E. H. W., age 76, came under my care on February 26, 1921. Family history negative, personal history, the mother of eight children at term and three miscarriages, oldest child now 48 years and the youngest 32. Five of these children are now living. She had been known to have diabetes mellitus for the past eighteen years, and for the past two years had expelled gas from the bladder with nearly every urination. This caused her a great deal of distress; otherwise, her personal history was negative.

She had been under the care of a number of doctors and had been kept alive largely because of the fact that her diet was carefully regulated and she had had suitable periods of starvation and lessened diet. Throughout the greater part of this period she had been under the care of Dr. F. W. Plehn of Scottsbluff, Nebraska, who directed her case very skillfully and successfully and instructed her daughter in the art of preparing food for her in a suitable manner. However, with the greatest of care it had not been possible to keep her urine sugar free for any considerable length of time.

Physical Examination.—The patient was a rather thin, but quite active, old lady of superior mental attainment. Head, chest and abdomen negative. Blood pressure was 130-80.

Pelvis.—Perineal laceration of second degree with marked cystocele and rectocele; uterus retroverted and freely movable; ovaries not palpable; no tenderness throughout the pelvis.

Cystoscopic examination of the bladder showed an irregular ulcer in the trigone, about one-fourth inch wide by three-eighths of an inch long with ragged edges; a diverticulum above the right ureter with small opening into the bladder. This diverticulum holds six drams. The rest of the bladder was normal. The ureters were not catheterized at any time because of the danger of spread-

*Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

ing infection to the kidneys; but the urine could be seen coming from each of the ureters regularly and normally and it was apparently clear.

Chemical Examination of Urine.—Repeated examinations of the urine have shown deep cloudiness with some floeculae and a peculiar sweetish, alcoholic odor. Reaction, acid; specific gravity, varying from 1026 to 1042; albumen always present, varying from one to three and one-half per cent; sugar constantly present, varying from 5 to 8.25 per cent; indican and acetone never present.

Microscopically an abundance of motile bacteria; yeast like cells, and an unidentified fungus; granular and epithelial casts; many bladder cells and many pus cells.

Diagnosis.—Ulcer of the bladder and diverticulitis of the bladder.

Treatment.—With air dilatation through a Greenberg Cystoscope I mopped the trigonal ulcer with nitrate of silver solution, forty grains to the ounce. I aspirated contents of the diverticulum and mopped its cavity out with nitrate of silver solution, 20 grains to the ounce. Between treatments she has had irrigations of the bladder with potassium permanganate solution 1 to 3000.

This case is still under observation, and this line of treatment results in her being free from gas formation from three to four weeks, when a small quantity of gas will again be manifest. Hexamethylene and other urinary antiseptics have apparently had no effect on her urinary condition, only local treatment giving any satisfaction whatever. An interesting observation is, that when the cystoscope enters the diverticulum there is always a gush of gas mixed with urine. This is expelled with considerable force, showing that the diverticulum is congenital and has a muscular coat. The use of irrigations alone do not result in lessening of the gas formation, showing that the greater part of the gas formation occurs in the diverticulum and is expelled from there into the bladder and from the bladder through the urethra, the irrigating fluid being excluded from the diverticulum by the valve-like action of its opening.

The aspirated contents of the diverticulum are markedly different from the contents of the bladder in that they contain a greater percentage of yeast-like cells and a larger amount of fungi, though fungi are also found

to a lesser extent in the urine from the bladder. These fungi consist of long mycelia, divided into cells at intervals, some of these cells enlarging to become spore bearing. At the end of many of the mycelia are apparently differentiated, spore bearing, cells. The fungus is extremely small, being visible only under the oil immersion lens. The urine from the diverticulum also contains a large number of free spores from this fungus. The motile bacteria are the colon bacillus, as when planted in pure cultures from a 24-hour Petri plate they form a white colony, heaped up in the center, thinner near the edge, with a lobulated border, soft and moist. On lactic acid, gelatine and nutrient agar they have a cloudy growth; Loeffler's Blood Serum, 36-hour macroscopic growth; Potato media, gas bubbles, with grey growth; on 24-hour growth on Russell double sugar media they form gas, with a color change of from nearly clear to deep pink, indicating acid. Colonies examined with hanging drop show motile bacteria. On purple lactose agar in 18 hours there is a marked color change from purple to bright yellow both on the streak and stab, signifying acid and gas bubbles which result in breaking up and separation of the media. On potato media the mold grows in the characteristic form in which it is found in the diverticulum. We were not successful in obtaining a growth of the yeast-like organisms and I am wondering if it merely was one stage in the growth of the mold.

This case has many points of interest, the first being that a patient of this age could be kept in comfort over a period of eighteen or nineteen years from the time a diagnosis of diabetes mellitus was made. This, of course, was due to the fact that her case had been under constant and intelligent medical direction and in the hands of a competent nurse. At no time in this period has it been possible to keep her urine free from sugar for any considerable length of time.

I have not attempted to treat the diabetic condition but left that under the guidance of her former physician and her daughter, as they had been quite successful in keeping her comfortable.

The second point of interest is the existence of a diverticulum which is evidently congenital, but which caused no trouble until it became the seat of a chronic infection with colon bacillus and fungi.

The third point of interest is the existence of a colon bacillus and fungus cystitis and diverticulitis, resulting with the presence of the glucose laden urine, in an alcoholic fermentation with the formation of carbon dioxide gas.

The fourth point of interest, of course, is the trigonal ulcer occurring near the lower point of the cystocele. Trigonal ulcers are rather common and result in a great deal of distress, but are readily cured by the application of strong silver nitrate solutions. Pneumaturia is reported in a considerable number of cases of diabetes, but I have not seen a report of a case with accompanying diverticulitis.

In this case the diverticulum has remained the focus of continual infection, it being impossible to completely clear the diverticulum through the urethra, there remaining a constant nidus spreading the infection into the bladder. It has been a common experience when giving treatments, at four to six days intervals, to find the bladder free of gas; but upon introduction of the cystoscope into the diverticulum a gush of gas will come.

I have used the treatment outlined because it has given the old lady comfort and relieved her distress to a marked degree and the use of radical measures is positively contra-indicated by her age and general condition. The treatment outlined, at the present time, will give her freedom from distress from two to four weeks and as she stands cystoscopy without much distress, I consider that this is as good a result as can be obtained.

DISCUSSION.

Dr. J. T. Clegg (Siloam Springs): Dr. Lawson Tate taught us thirty years ago to wash the bladder out with hyposulphite of soda solution and stop them from making bread and give them opiates. The condition is due to contamination of the patient's hands with the torula cerevisia, or yeast plant.

THE RADIUM DOSE.

The radium dose is all you've got
Left in upon against the spot,
Till patient ceasing to eat and sleep,
Unable to laugh, begins to weep;
As he thinks of what the doctor's fee
For all that time will likely be!
As thus he waits the flowers bloom
And patient lists for crack of doom.
If now he's ready and pays the fee
The stuff's removed immediately.

—SOUTHARD, Ft. Smith.

THE DIAGNOSIS OF SYPHILITIC AORTITIS.*

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The diagnosis of syphilitic aortitis constitutes a three-fold problem; first, the determination of the presence of aortitis; second, the diagnosis of syphilis; and, third, the linking of syphilis as the etiologic factor to the aortitis.

DIAGNOSIS OF AORTITIS.

In the diagnosis of aortitis the symptoms, physical signs, and results of fluoroscopic X-ray examinations must be considered.

The symptoms, if indeed any are present, usually do no more than to determine an examination of the heart for they are usually so vague as to be devoid of diagnostic value. The disease is not infrequently found at autopsy in cases having presented no symptoms of its presence before death. It is furthermore of the utmost importance to make a diagnosis before the advent of marked symptoms. The frequency with which symptoms are elicited varies in great measure with the care in taking an accurate history.

The most frequent symptom is pain. This may first arise from a violent physical strain or may be of gradual onset and may vary from a mere substernal oppression or constriction to violent anginal attacks. The most frequent location of pain is in the precordia, or under the manubrium, and may be circumscribed, or may be referred over the entire front of the chest, to the back or epigastrium or down the arms, more frequently down the left. The pain is ordinarily aggravated by physical exertion, but may occur at rest, even waking the patient from sleep.

The symptom next in frequency is dyspnea, varying from slight shortness of breath on exertion to agonizing attacks of air-hunger. The milder degrees of dyspnea are frequently complained of after exertion, the more severe are often paroxysmal and unrelated to activity, and are frequently associated with aortic regurgitation or advanced aneurysm. Pain and dyspnea frequently go hand in hand.

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Rapid, irregular or forceful heart action are occasional complaints and other symptoms sometimes elicited are cutaneous hyperesthesia of the chest, fever of moderate degree, cough, weakness and gastric symptoms. Advanced aneurysm and aortic regurgitation may produce their classical clinical pictures.

Just as the symptoms of aortitis usually give no more information than to determine a heart examination just so do the physical signs serve only as clues to be followed up by fluoroscopy or orthodiagraphy. This statement applies in its entirety to aortitis alone and to early aneurysm; but in late aneurysm and well established aortic insufficiency characteristic signs may be obtained.

The most constant physical signs of aortitis are elicited by auscultation at the aortic area. The most frequent of these is a systolic murmur replacing the first sound. It is ordinarily transmitted upward, but may be localized. The murmur is usually of a very soft blowing quality and lacks the rough or hissing nature of some of the aortic stenotic murmurs; indeed, the aortic first sound may be so indistinct as to be frequently recorded merely as "impure."

The next most common sign is a change in the note of the aortic second sound. This becomes of a metallic, ringing or musical character, sometimes bell-like in quality, and is to be differentiated from the accentuation heard in cases of hypertension. As a diagnostic sign its value is in inverse ratio to the height of the blood pressure. An aortic thrill is not palpable in the absence of stenosis.

Percussion gives evidence of aortic dilatation but less accurately and later than the X-ray.

Visible pulsation is occasionally manifest in the upper interspaces at the border of the sternum and in the suprasternal notch and supraclavicular areas due to the raising of the large branches given off from the arch of the aorta. The apex beat is dislocated in proportion to the cardiac enlargement.

It is upon the data furnished by the X-ray that the final diagnosis must rest. Symptoms and physical signs are of value, but their practical utility for precise diagnosis is limited, especially in incipient cases, and their greatest worth lies in directing the X-ray examination. Slight aortic changes may be detected by the fluoroscope or orthodiagraph, which are beyond the pale of physical diag-

nosis and before the advent of any symptoms whatever. The X-ray shows the shape of the heart as well as its size. There is not the usual danger in employing fluoroscopy as applies to other short cuts in diagnosis because the heart is actually seen at work and the results of its activity as expressed by pulsation of the aorta and the heart chambers during systole can be determined as by no other method.

Not being a roentgenologist nor having done the X-ray work in connection with the cases to be analyzed the technic of fluoroscopy in the diagnosis of aortitis will not be considered.

DIAGNOSIS OF SYPHILIS.

It is not within the scope of this paper to deal at length with the diagnosis of syphilis; however, I venture the statement that at the present time too much stress is being laid on the Wassermann reaction and too little upon a carefully taken history and painstaking examination. The diagnosis of syphilis is often a matter of the sharpest clinical judgment and cannot safely be relegated to technicians. It is a fact, however, that not infrequently, in undoubted cases of syphilis, there is no history of infection to be obtained. In such cases the Wassermann reaction is of great value. Two essentials in utilizing this reaction in diagnosis are: first, that it has been done by a worker of proper training and integrity; second, that it is to be considered as only a part of the material of which the diagnosis is constructed and not the structure itself.

THE SYPHILITIC FACTOR IN AORTITIS.

Given the presence of aortitis and of syphilis in an individual two sets of circumstances must be considered before syphilis is incriminated as the etiologic factor of the aortitis; first, when the patient gives no history of other possible causative influences; and second, when such etiologic influences are confronted. The value of detailed history taking here presents itself in a forceful fashion as one of the essentials to a differential diagnosis.

Aortitis is more frequently the legacy of syphilis than all other diseases combined. Rheumatic fever easily takes the first place in the absence of syphilis; but here the process is commonly only a part of an endocarditis and evidence of endocardial involvement, par-

ticularly in the mitral area, can usually be detected. Closely allied to rheumatic fever as an occasional cause of aortitis is streptococcal infection; here also the aortitis is an extension from an endocardial inflammation. Typhoid fever and influenza are very rare causes of aortitis. Atheromatous degeneration, as part of a general arteriosclerotic process may cause a degree of dilatation of the aorta with density of the fluoroscopic shadow.

When both syphilis and rheumatic fever present themselves in the history of a patient with aortitis it should be remembered that syphilis is by far the commoner cause of aortic involvement, and that in rheumatic aortitis there will frequently be found endocardial damage, usually at the mitral region. Syphilis is prone to attack the aortic area while rheumatic fever inclines to the mitral. Syphilis of the aorta has a long latent period, fifteen to twenty years, while the heart lesions of rheumatic fever manifest themselves during or shortly after the attack. The tendency in rheumatic aortitis is often toward spontaneous improvement while the syphilitic lesion untreated is progressive. A metallic tone of the aortic second sound is significant of syphilis. The Wassermann reaction is positive in about 80 per cent of cases of syphilitic aortitis.

When it becomes necessary to apportion the aortic damage between syphilis and arteriosclerosis in an individual it should be borne in mind that arteriosclerosis does not cause the greater degrees of aortic dilatation as does syphilis. The changes in syphilitic aortitis begin and are often confined to the first portion of the vessel while atheroma often affects the descending portion. Substernal pain and dyspnea are frequent complaints of aortic involvement and are uncommon in atheroma. The aortic second sound is accentuated in arteriosclerosis with hypertension, while it is bell-like in syphilitic aortitis. Aortic regurgitation is relatively uncommon in atheroma, but is a common sequel of syphilitic aortitis. Aneurysm is rarely due to any other cause than syphilis.

ANALYSIS OF CASES.

The number of cases in the series on which this paper is based was 28, of which 21 were aortitis alone, three of aortitis with aneurysm, and four of aortitis with aortic regurgitation. All the cases were white males but as the

material was drawn from the Department of Syphilis of the U. S. Public Health Service Clinic where white males greatly predominate, there is nothing unusual in this incidence.

The youngest patient was 21 and the oldest 68. The ages by groups were as follows: 21-25, one; 26-30, one; 31-35, two; 36-40, three; 41-45, two; 46-50, six; 51-55, six; 56-60, three; 61-65, three, and 66-70, one.

The occupations were represented by: Common laborers, eleven; cooks, steam fitters and machinists, each, two; photographer, oil refiner, carpenter, fireman, plasterer, street car conductor, engineer, painter, oil driller, miner and barber, each, one.

Each of the 28 cases gave a history of syphilis. In nine cases the Wassermann reaction on the blood was negative at the time of examination. In eight of these nine cases there was definite history of infection and of specific treatment. The other case gave no history of infection or of treatment, but sluggish knee jerks, irregular pupils and a positive spinal fluid Wassermann were found at the examination. The percentage of positive Wassermans would have been higher but for recent vigorous treatment in several of the negative cases.

Three cases of aortitis alone and one of aortitis with regurgitation gave rheumatic fever in their histories. In none of these cases, however, did the aortic involvement bear any relation, in point of time, to the rheumatic attack and in none was evidence found of involvement of the mitral area.

Of the twenty-one cases of aortitis alone eighteen had symptoms and three no symptoms whatever. Among the eighteen who complained of symptoms these had to do with the circulatory system in fifteen cases and were extra-circulatory in three.

Analyzed with reference to the outstanding symptom, that is the chief complaint, this was circulatory in only four cases and extra-circulatory in fourteen.

In the entire series of 28 cases, pain, including precordial or substernal distress, was the most frequent symptom, being complained of by fourteen patients, eight with aortitis alone, three with aortitis and aneurysm, and three with aortitis and regurgitation. Dyspnea was elicited in the histories of ten patients, five with aortitis alone, two with aortitis and aneurysm and three with aortitis and regurgitation. Palpitation was one of

the complaints of six patients, five with aortitis alone and one with aortitis and aneurysm.

In the 21 cases of aortitis alone the most important physical findings were as follows: An aortic systolic murmur transmitted up, in ten cases; an aortic systolic murmur not transmitted, in three cases; impurity of the aortic first sound, in three cases; metallic aortic second sound, in nine cases.

The average systolic pressure in the 21 cases of aortitis alone was 140, the diastolic 89. There were four cases presenting systolic pressures of 160 or over; 160, 160, 165 and 175 in patients aged 36, 63, 65 and 60 respectively.

Each of the four cases with aortic regurgitation presented a to and fro murmur at the aortic area, the diastolic murmur transmitted downward.

One of the cases with aneurysm showed an aortic systolic murmur transmitted up with accentuation of the second sound. In the second case was heard a bruit from the apex to the epigastrium, at the height of systole and the beginning of diastole, with marked epigastric pulsation. In the third case there was heard a systolic murmur at the tricuspid area not transmitted and pulsation was visible in the second and third left interspaces near the sternum.

I am indebted for the fluoroscopic work in these cases to Dr. W. L. Snyder, Roentgenologist to the U. S. Public Health Service Clinic and to the Leo N. Levi Memorial Hospital, and to Capt. L. G. Martin, U. S. Army, on duty at the U. S. Public Health Service Clinic, for referring to me most of the cases in the series.

DISCUSSION.

Dr. D. A. Rhinehart (Little Rock): I accidentally stumbled on to a case of syphilitic aortitis, which progressed rather rapidly. On the 17th day of March, a young negro man about 25 years of age was referred from the general medical clinic at the Isaac Folsom Clinic to the Department of Tuberculosis because of a pain in the upper part of the chest under the sternum, with a few rales heard over the top of each lung. He was referred for a fluoroscopic examination, during which his lungs appeared to be entirely clear. In examining the aorta in the oblique view, it was found to be about an inch and a half in diameter. A report was made that the lungs were practically clear, but that the aorta was definitely enlarged. A Wassermann test was suggested. This was run on the 22nd day of March, and was found to be four plus positive. For some reason he did not return to the urology clinic for treatment until the 3rd day of May, about six weeks after the diagnosis was made. On the 5th day of May he was again referred to the Department of Roentgenology for a fluo-

roscopic examination, at which time the transverse diameter of the aorta in oblique view was at least two and a half inches in diameter, an increase of an inch in diameter in six weeks. On the second examination, there was found a fusiform aneurism involving practically all of the arch of the aorta.

Yesterday Dr. Greene spoke about mercurializing patients to within an inch of their lives. I believe had this patient been mercurialized or salvarsanized to an inch of his life immediately after the diagnosis was made, it probably would have added at least twenty or twenty-five years to his life.

Dr. G. E. Tarkington (Hot Springs): The paper was a splendid one. There is one point I want to bring out, and that is the constant and persistent positive Wassermans in these cases. Regardless of treatment and improved clinical signs, they seem to present persistent positive blood Wassermans. Dr. Rhinehart mentioned salvarsanizing the patient. I think that mercury and iodide are the drugs to be used in this condition. Salvarsan doesn't seem to affect them at all.

Dr. W. H. Deaderick (in response): I have nothing to add, except to thank you for discussing my paper.

INTRAVENOUS USE OF QUININE IN MALARIA.

CONCLUSIONS.

1. The dangers in the intravenous injection of quinine in the treatment of malaria are: Depression of the circulation; disagreeable and alarming nervous phenomena; and local necrosis and sloughing at the point of injection.

2. No evidence is found to indicate that this route possesses special advantages over ordinary mouth administration of the drug in curing the acute attack or in ridding the blood stream of sexual forms (crescents), except with regard to the speed with which therapeutic control may be initiated.

3. The method should be reserved for those cases with urgent clinical indications or in which mouth administration of the drug is impracticable for any reason.

4. The untoward effects which may result from intravenous administration of quinine may be largely avoided by rigorously observing certain precautions similar to those found necessary in the injection of such drugs as salvarsan.

—By KENNETH F. MAXCY, *Assistant Surgeon*,
United States Public Health Service.

(Reprint No. 736.)

THE JOURNAL

OF THE

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

AS OTHERS SEE US.

Robert Burns was inspired to write his famous lines:

"Oh wad some power the giftie gie us

To see oursel's as ithers see us!"

by noting the presence of a bug on the bonnet of a woman at church. Now, had some kind friend seen the insect and notified the lady, she doubtless would have removed it. Likewise, it is good for all of us to have our deficiencies pointed out to us, when done with the best intentions. Thus may be remedy them. Without unprejudiced criticism, we are apt to fall into a condition of smug satisfaction with ourselves and our surroundings.

Speaking at a mass meeting held at the Hotel Marion, Little Rock, to inaugurate a new campaign for the completion of the Baptist Hospital, Dr. S. P. Brooks of Baylor University, Waco, Texas, said: "It is no credit to Arkansas that it has not a four-year Class A Medical School and without fully equipped Class A hospitals a Class A Medical School is impossible. It is all wrong that Arkansas students of medicine have to go to other States to find such schools and hospitals and the fact remains that they must do so, because Arkansas has only a Junior Medical School." The speaker added that if he knew Arkansas he believed that presently this handicap would be removed.

The School of Medicine of the University of Arkansas has been vastly improved; but the facilities and equipment of such a hospital as is proposed will hasten the day when Arkansas medical students will have every facility afforded by any other State.

BUT REMEMBER THE LATE MR. BARNUM'S THEORY.

Dr. W. T. Wootton, of Hot Springs, delivered an excellent paper before the Arkansas Medical Society at the annual meeting in Little Rock, which is printed in full in this issue of the Journal. That the views advocated were not unanimously indorsed, but met with criticism instead, does not detract from the merit of the paper; but it will be admitted that before the object is attained most of us will be gone hence.

Dr. Wootton believes that the profession should abandon the mysticism surrounding

the practice of medicine and actually let the public know—what thousands of the laity already know or strongly suspect—that doctors not infrequently prescribe “medicines” whose chief virtue is they are harmless, the doctor knowing full well that they will do no good, except as it may affect the patient’s imagination. As Dr. Wootton puts it, “We centered their minds on the bottle and mother nature did the rest.” And he asks, “Why do we have to lend ourselves to this sort of thing?” The question was abundantly answered by the famous theory of the late Phineas T. Barnum, namely that the American people love to be humbugged. And this is as true of the people of the twentieth century civilization, in regard to medicine, as it is of the dark races of the Gold Coast and their superstitious reverence for the medicine men of their tribes. Tell a hypochondriac woman or man that nothing ails him or her that medicine will cure, and the patient seeks a doctor who will, as Hamlet has it, “put them to their purgation,” and fill them with drugs or at least make them think they are being properly drugged. Nor is the physician culpable in the harmless deceit of making a patient believe the “medicine,” which may be nothing stronger than bread pills, will give relief. Or rather he may not deliberately seek to make him believe it, but he satisfies the patient’s own belief that only medicine will do him any good. Dr. Wootton freely admits he has prescribed capsules containing nothing but a few grains of malted milk and a sweet tasting tonic. And he asks, “Did I proclaim to that patient that I held a ‘thought’ over him? Of course, he did not, nor was there any need so to do. If the supposed remedy hastened recovery, by affecting the patient’s imagination, all well and good. Dr. Wootton deplors the continuation of mysticism in the practice of medicine, one factor of which is the use of Latin in prescriptions. But the people at large never will become so universally enlightened that old methods can be entirely abandoned.

The people at large do not think. Hence we have Methodists, Baptists, Episcopalians, Christians, Catholics and subscribers to a hundred other religious beliefs for no better reason than that they were reared in those faiths. As the doctor says in his paper, “he was raised to stand by the Democratic party.” So it is with religion and politics, and, we may add, the science of medicine, so far as

the common view is concerned. The critics of Dr. Wootton take two positions, one that to teach children in public schools is impractical because merely an academic knowledge of the most sparse sort could be included in the course and the other that the brains of the small child is already overburdened and often with studies that are largely supererogatory and of little use to the student in later years.

That the people should be, and are being, taught principles of hygiene and sanitation as a means of preserving health and preventing disease, goes without saying. That school children should be instructed in anything beyond the fundamentals of physiology, hygiene and sanitation is another matter; and that the practitioner should adhere strictly to the truth, tell a patient he needs no medicine instead of letting his imagination assist nature by giving harmless prescriptions, is still another thing, and one that is little likely ever to prevail.

Abstracts.

Observations on the Treatment of Syphilis in Pregnancy in the Department of Health in Detroit. By Walter E. Welz and Alfred Van Nest. *American Journal of Obstetrics and Gynecology*, Vol. IV., No. 2, August, 1922.

Most obstetricians find that the greatest causative factor in premature deliveries and macerated feti is syphilis. At Prenatal I of the Department of Health of Detroit an attempt has been made through prenatal care to lessen the incidence of congenital syphilis. During 1921, 1,467 new prenatal cases attended the clinic. Of them, 47.6 per cent were white and 52.4 per cent were colored. Of the total, 13.1 per cent were diagnosed as syphilitic. Among the white patients, 5.7 per cent were syphilitic, and among the colored, 19.3 per cent were syphilitic. Of the total of 193 patients having syphilis, only 147 were cared for through pregnancy. The following conclusions were made:

About 85 per cent of the mothers diagnosed as syphilitic suffered from latent syphilis. It was not through complaint but through routine examination that these were discovered.

Early diagnosis and treatment are of utmost importance. As syphilis is transmitted only through the placenta to the fetus after a period of about three months, it is evident that treatment instituted early in pregnancy

can prevent fetal transmission. After the fetus is infected, the possibility of fetal cure is lessened and it is more difficult to accomplish. It is questionable whether anti-syphilitic treatment through the mother can be of any value to the fetus in utero when the vital organs of the fetus are severely involved. Full treatment should be attempted even at the end of pregnancy in hope of securing a controlled case in a living child which can be further cared for after birth.

The injection of neosalvarsan was not found to produce miscarriages or premature deliveries. With a small initial dosage, gm. 0.3, and an increase to gm. 0.45 or gm. 0.6 in weekly injections, no harm results.

Those mothers who have not completed their treatment before delivery are urged to return for the completion of treatment after delivery. They are also urged to return to the clinic for examinations and care as soon as future pregnancies are suspected.

Every prenatal case should be carefully examined for syphilis. Routine examinations of placenta and fetus for signs of syphilis are valuable not only to the child, but to subsequent children which are born after proper treatment has been instituted upon the mother.

Personal and News Items.

Dr. W. T. Moore has moved from Gilbert to Leslie.

Dr. and Mrs. F. T. Murphy of Brinkley visited in Little Rock last month.

Dr. M. N. York of Little Rock has moved to Spring, Texas.

Dr. George M. Eckel of Hot Springs announces his practice limited to Diseases of the Nervous System.

Dr. C. Travis Drennan of Hot Springs was elected vice president of the Mississippi Valley Medical Association at their recent meeting at Rochester, Minn. Hot Springs was chosen for the 1923 convention.

Dr. T. B. Bradford, of Brinkley, visited in Little Rock this month.

Dr. Bradford has been appointed Field Secretary of the No-Tobacco League of America, Inc.

The Tri-State Medical Society will hold its annual meeting in Marshall, Texas, on Wednesday and Thursday, December 6-7, 1922. Dr. J. N. White, Texarkana, will preside.

The Missouri Pacific Hospital Association buys site in Little Rock for a hospital to cost \$150,000. The location is on Lincoln Avenue, just north of the Missouri Pacific Railroad Depot. Work on the hospital will probably begin about March 1, according to present plans.

Dr. E. P. Bledsoe, formerly superintendent of the State Hospital for Nervous Diseases, Little Rock, will succeed Dr. L. O. Weldon as superintendent of the government hospital at Fort Logan H. Roots. Dr. Weldon was transferred to Ellis Island for medical service in connection with the examination of immigrants. Dr. Weldon has been in charge at Fort Roots about a year and a half. He came here from Washington, where he was engaged in government medical service.

RESOLUTION.

Be It Resolved, That in the death of Dr. A. C. Jordan, on the 29th day of August, 1922, the Jefferson County Medical Society has lost a most valuable member, his wife a kind and devoted husband and the State a conscientious and honorable citizen; that he was noted for his purity of life and sterling integrity; that the medical profession at large has sustained a great and irreparable loss.

Resolved, Further, That the sympathy of the Jefferson County Medical Society be extended to his widow and other relatives and as a token of respect that a copy hereof be sent to his widow and a copy printed in the local newspaper, and that Dr. J. M. Lemons, president of this association, be elected to present this resolution to the Arkansas State Medical Society at its next meeting.

J. M. LEMONS,
A. W. TROUPE,
J. T. PALMER,
Committee.

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Wigley, J. A.	Mulberry

CRITTENDEN COUNTY

Burch, W. D.	Seyppe
Hare, T. S.	Crawfordsville
Henry, Hugh B.	Hulbert
Hicks, W. P.	Earle
Irbv, J. T.	Earle
McVay, L. C.	Marion
Parker, A. C.	Clarksdale
Reed, F. M.	Turrell
Stevenson, B. M.	Crawfordsville
Watson, H. S.	Earle

CROSS COUNTY

Barner, W. B.	Wynne
Griffin, J. L.	Vandale
Griffin, Walter L.	Cherry Valley
Hare, Jacob L.	Wynne
Lipsev, L. H.	Wynne
Longest, Ruffin	Wynne
McKie, J. D.	Wynne
McKie, W. H.	Wynne
Stewart, Thos. J.	Wynne
Webb, Floyd	Parkin
Wilson, Thos.	Wynne

DALLAS COUNTY

Atkinson, H. H.	Fordyce
Cheatham, H. A.	Princeton
Harrison, F. E.	Fordyce
Hope, O. W.	Fordyce
March, C. J.	Fordyce
Smith, J. Y.	Sparkman
Taylor, J. E. M.	Sparkman
Thornton, J. D.	Willow
Wilson, J. F.	Dalark

DESHA COUNTY

Cheairs, D. T.	Tillar
Cheairs, J. T.	Tillar
DeClark, W. H.	McGehee
Francis, J. W.	Arkansas City
Isom, A.	Dumas
MacCammon, Vernon	Arkansas City
Price, C. C.	Dumas
Smith, H. T.	McGehee
Watts, J. D.	Dumas

DREW COUNTY

Baker, J. P.	Jerome
Butler, E. D.	Wilmar
Collins, A. S. J.	Monticello
Cotham, E. R.	Monticello
Duckworth, F. L.	Monticello
Gates, S. M.	Monticello
Kimbrow, S. O.	Monticello
Lisenbee, A. M.	Collins
O'Connor, F. J.	Monticello
Pope, M. Y.	Monticello
Smith, R. N.	Collins

FAULKNER COUNTY

Baugh, W. F.	Conway
Benfield, C. E.	Conway
Brown, Geo. S.	Conway
Burnett, M. C.	Wooster
Cureton, H. E.	Conway
Dawson, R. L.	Wooster
Dickerson, C. H.	Conway
Downs, J. H.	Vilonia
Fraser, N. E.	Conway
Greeson, W. R.	Conway
Harrod, George	Conway
Henderson, G. L.	Conway
Huddleston, G. D.	Conway
Ingram, E. M.	Holland
McCollum, I. N.	Conway
McMahan, J. E.	Conway
Munn, J. B.	Vilonia
Muse, J. M.	Conway
Summers, J. A.	Mayflower
Snoddy, T. B.	Conway
Watson, T. C.	Mount Vernon
West, W. J.	El Paso
Westerfield, J. S.	Conway

FRANKLIN COUNTY

Akin, W. F.	Branch
Blackburn, E. W.	Ozark
Bollinger, W. H.	Charleston
Crocker, J. T.	Mulberry
Davis, J. W.	Jethro
Douglases, Thos.	Ozark
Gammill, S. P.	Branch
Gibbons, W. H.	Ozark
Gray, E. M.	Vesta
Hansberry, A. J.	Watalula
Higgins, J. H.	Ozark

FRANKLIN COUNTY—Continued

Hyden, L. N.	Hunt
Northum, A. C.	Charleston
Porter, W. C.	Ozark
Post, J. L.	Altus
Turner, H. H.	Ozark
Williams, H. F.	Gotebo, Okla.

GARLAND COUNTY

Black, T. N.	Hot Springs
Biggs, Orvis	Hot Springs
Brewer, H. W.	Hot Springs
Brown, P. Z.	Hot Springs
Browning, E. R.	Hot Springs
Bruce, G. C.	Hot Springs
Casada, B. F.	Hot Springs
Chesnutt, Jas. H.	Hot Springs
Clardy, Floyd	Hot Springs
Coffey, G. C.	Hot Springs
Collings, H. P.	Hot Springs
Connell, W. H.	Hot Springs
Dake, Chas.	Hot Springs
Davis, R. G.	Hot Springs
Deaderick, W. H.	Hot Springs
DeWoody, L. C.	Hot Springs
Diederich, V. P.	Hot Springs
Drennen, D. Edward	Hot Springs
Drennen, C. Travis	Hot Springs
Eckel, G. M.	Hot Springs
Ellis, L. R.	Hot Springs
Ellsworth, E. H.	Hot Springs
Fletcher, Geo. B.	Hot Springs
Garratt, C. E.	Hot Springs
Greene, J. L.	Hot Springs
Hallman, V. H.	Hot Springs
Jackson, W. W.	Hot Springs
Jarrell, Foster	Hot Springs
Jelks, J. T.	Hot Springs
Jennings, C. W.	Hot Springs
King, O. H.	Hot Springs
Klugh, Walter G.	Hot Springs
Knoefel, W. R.	Hot Springs
Lautman, M. F.	Hot Springs
Laws, W. V.	Hot Springs
Lee, D. C.	Hot Springs
McConnell, C. A.	Hot Springs
McKenzie, E. M.	Hot Springs
Minor, J. C.	Hot Springs
Minnich, Wm. C.	Hot Springs
Mobbs, Bert	Lahaina, Hawaii
Moss, Chas. S.	Hot Springs
Mount, M. F.	Hot Springs
Nims, C. H.	Hot Springs
Pate, C. N.	Hot Springs
Peoples, H. R.	Hot Springs
Porter, Wm. F.	Hot Springs
Proctor, J. M.	Hot Springs
Purdum, E. A.	Hot Springs
Randolph, J. P.	Hot Springs
Rowland, J. F.	Hot Springs
Sanders, T. E.	Hot Springs
Sharpe, S. B.	Hot Springs
Shaw, J. B.	Hot Springs
Short, Z. N.	Hot Springs
Simpson, W. F.	Hot Springs
Smith, E. R.	Hot Springs
Smith, J. H.	Hot Springs
Smith, O. A.	Hot Springs
Smith, W. K.	Hot Springs
Snider, W. L.	Hot Springs
Steele, S. B.	Hot Springs
Stell, J. S.	Hot Springs
Stough, D. B.	Hot Springs
Stout, L. H.	Hot Springs
Strachan, J. B.	Hot Springs
Sullivan, A. G.	Hot Springs
Tarkington, Grayson E.	Hot Springs
Thompson, E. L.	Hot Springs
Thompson Loyd	Hot Springs
Thompson, M. G.	Hot Springs
Tillotson, C. H.	Hot Springs
Tribble, A. H.	Hot Springs
Vaughan, P. T.	Hot Springs
Wade, H. K.	Hot Springs
Weil, S. D.	Hot Springs
Wilkins, J. S.	Hot Springs
Williams, A. U.	Hot Springs
Williams, F. M.	Hot Springs
Winegar, E. F.	Hot Springs
Wootton, W. T.	Hot Springs

GRANT COUNTY

Blakely, M. M.	Sheridan
Butler, J. L.	Sheridan
Capel, C. B.	Grape Vine
Cole, C. F.	Prattsville
Jones, J. E.	Sheridan
Kelly, O. R.	Sheridan
Paxton, Robt. L.	Leola
Sheppard, Irvin	Belfast

GREENE COUNTY

Baker, E. S.	Paragould
Boyd, D. L.	R. 6, Hot Springs
Bridges, G. P.	Paragould
Castleberry, F. L.	Paragould
Clopton, O. H.	Marmaduke
Dickson, P. L.	Paragould
Dillman, James A.	Paragould
Ellington, Edgar	R. 4, Paragould
Ellington, W. E.	R. 6, Paragould
Ellis, B. E.	Greenway
Haley, R. J.	Paragould
Hardesty, C. A.	Paragould
Hopkins, G. T.	Paragould
Huddins, J. J.	Marmaduke
Hutcherson, R. L.	Delaplain
Lamb, J. H.	Paragould
Majors, Wm. M.	Lafe
McKenzie, J. G.	Paragould
Scott, F. M.	Paragould
Wilson, Olive	Paragould

HEMPSTEAD COUNTY

Allison, Walter G.	Hope
Autrey, J. R.	Columbus
Bell, Wm. E.	Houston, Texas
Cannon, G. E.	Hope
Carrigan, P. B.	Hope
Garner, W. M.	Hope
Kelly, John L.	Hope
Lile, L. M.	Hope
Robins, W. F.	Ozan
Russell, M. V.	Hope
Saner, W. F.	Hope
Smith, Don	Hope
Stidham, J. H.	Hope
Waddle, J. S.	Hope
Weaver, J. H.	Hope

HOT SPRING COUNTY

Bramlitt, E. T.	Malvern
Cox, J. A.	Donaldson
Geary, V. S.	Malvern
Henry, C. A.	Malvern
Hodges, W. G.	Malvern
McCray, E. H.	Malvern
Norton, J. M.	Friendship
Phillips, R. Y.	Malvern
Prickett, Chas.	Malvern
Williams, J. M.	Malvern

HOWARD COUNTY

Alford, T. F.	Murfreesboro
Gibson, W. M.	Nashville
Hale, A. W.	Nashville
Roberts, J. L.	Murfreesboro

INDEPENDENCE COUNTY

Baldwin, W. S.	Cotter
Bone, O. L.	Newark
Burge, H. G.	Sulphur Rock
Craig, M. S.	Batesville
Dorr, R. C.	Batesville
Evans, A. A.	Newark
Evans, L. T.	Mt. Pleasant
Gray, C. C.	Batesville
Gray, F. A.	Batesville
Harris, M. L.	Oil Trough
Hinkle, Chas. G.	Batesville
Huskey, J. M.	Moorfield
Jeffrey, F. E.	Desha
Jeffrey, Paul H.	Bethesda
Johnston, O. J. T.	Batesville
Kennerly, J. H.	Batesville
King, K. W.	Floral
Laman, Thos.	Cave City
Lawrence, W. B.	Batesville
McAdams, V. D.	Cord
Moore, W. P.	Little Rock
Pascoe, V. L.	Newark
Reves, L. E.	Salado
Robertson, S. N.	Sulphur Rock
Rodman, T. N.	Newark
Roe, J. B.	Newark
Smith, H. H.	Calico Rock
Weathers, J. L.	Salem
Woods, O. S.	Sidney
Woods, T. J.	Evening Shade
Wyatt, W. A.	Rosie

JACKSON COUNTY

Barr, A. F.	Weldon
Best, A. L.	Newport
Causey, G. A.	Swifton
Elton, A. M.	Newport
Erwin, I. H.	Newport
George, C. E.	Grubbs

JACKSON COUNTY—Continued

Gray, C. R.	Newport
Ivy, J. B.	Tuckerman
Jamison, O. A.	Tuckerman
Jones, O. E.	Newport
Kimberlin, K. K.	Tuckerman
Loftin, Wm. R.	Grubbs
McCurry, J. H.	Grubbs
Norris, R. O.	Tuckerman
Owens, M. B.	Rommel
Simpson, W. S.	Algoa
Slayden, L. T.	Tuckerman
Stephens, G. K.	Newport
Thomason, Wm. T.	Newport
Walker, H. O.	Newport
Watson, E. L.	Newport
Wilson, W. F.	Elmo

JEFFERSON COUNTY

Blankenship, W. H.	Pine Bluff
Breathwit, Wm.	Pine Bluff
Caruthers, C. K.	Pine Bluff
Chavis, W. M.	Pine Bluff
Crump, J. F.	Pine Bluff
Davidson, J. S.	Pine Bluff
Gill, J. F.	Pine Bluff
Glover, C. A.	Pine Bluff
Hankinson, O. C.	Pine Bluff
Hughes, A. A.	New Gascony
Jenkins, J. S.	Pine Bluff
John, J. W.	Pine Bluff
Lemons, J. M.	Pine Bluff
Lowe, W. T.	Pine Bluff
Luck, B. D.	Pine Bluff
Palmer, J. T.	Pine Bluff
Scales, J. W.	Pine Bluff
Shelton, M. A.	Wabbaseka
Spillyards, J. S.	Pine Bluff
Troupe, A. W.	Pine Bluff
Vines, C. L.	Pine Bluff
Woodul, T. W.	Pine Bluff

JOHNSON COUNTY

Barger, M. I.	Lamar
Boen, A. L.	Clarksville
Bradley, John F.	Lamar
Hardgrave, G. L.	Clarksville
Hays, Annie	Clarksville
Hunt, E. H.	Clarksville
Hunt, Wm. R.	Clarksville
Kolb, J. S.	Clarksville
Manley, R. N.	Clarksville
Price, C. T.	Point, Texas

LAFAYETTE COUNTY

Baker, F. E.	Stamps
Benton, J. B.	Stamps
Hoover, A. S.	Stamps
Kitchens, W. L.	Stamps
McKnight, J. F.	Bradley
Youmans, F. W.	Lewisville

LAWRENCE COUNTY

Allen, Marshall	Walnut Ridge
Ball, C. C.	Ravenden
Clay, A. J.	Hoxie
Guthrie, R. H.	Smithville
Guthrie, T. C.	Smithville
Hatcher, Wright W.	Imboden
Henderson, A. G.	Imboden
Hughes, J. C.	Hoxie
Johnston, Wm.	Hardy
Land, J. C.	Walnut Ridge
McCarroll, H. R.	Walnut Ridge
Morris, J. W.	Pima, Ariz.
Neece, T. C.	Walnut Ridge
Robinson, W. J.	Portia
Stephens, J. M.	Minturn
Swindle, J. C.	Walnut Ridge
Thomas, Earl	Hoxie
Townsend, C. C.	Walnut Ridge
Warren, G. A.	Black Rock
Watkins, G. M.	Walnut Ridge

LEE COUNTY

Bean, W. B.	Marianna
Beatty, W. S.	R. I. Aubrey
Bogart, H. D.	Marianna
Chafin, C. W.	Moro
Crawford, W. S.	Marianna
Haynie, Wm. R.	Haynes
Lewis, J. F.	Marianna
Longley, W. W.	Marianna
McLendon, Mac	Marianna
Russwurm, S. C.	LaGrange
Wall, E. D.	Marianna
White, H. L.	Rondo
Williamson, O. L.	Marianna
Wilsford, A. L.	Moro

LINCOLN COUNTY

Colquitt, S. W.	Grady
Conroy, R. B.	Little Rock
Dixon, Chas. W.	Douglas
Tarver, B. F.	Star City
Thiolliere, A. C.	Varner
Wood, G. C.	Grady

LITTLE RIVER COUNTY

Bonnette, J. V.	Foreman
Castile, Herman	Foreman
Johnson, J. J.	Foreman
Marr, S. C.	Ashdown
Nixon, A. M.	Arden
Phillips, P. H.	Ashdown
Ringgold, J. W.	Ashdown
Vaughan, W. E.	Richmond
York, W. W.	Ashdown

LOGAN COUNTY

Armstrong, N. E.	Booneville
Bennett, W. H.	Paris
Harkins, R. A.	Ratcliff
Hederick, A. R.	Booneville
Keck, H. M.	Ratcliff
Smith, A. M.	Paris
Smith, J. J.	Paris
Stewart, John	Booneville
Thompson, R. C.	Paris

LONOKE COUNTY

Beatty, S. S.	England
Benton, T. E.	Lonoke
Brewer, John F.	Kerr
Butler, O. C.	England
Callahan, A. E.	Carlisle
Corn, F. A.	Lonoke
Crowley, W. B.	Scott
Cunning, John R.	Lonoke
Elliott, J. E.	Little Rock
Harris, E. H.	R. F. D., England
Kelly, M. D.	Lonoke
Murchison, A. J.	England
Scruggs, G. W.	Humnoke
Southall, S. A.	Lonoke
Street, H. N.	Lonoke
Taylor, Ira S.	McCool, Miss.
Thibault, H.	Scott
Ward, O. D.	England
Watson, A. C.	England
Wells, J. B.	Scott

MADISON COUNTY

Acree, W. E.	Marble
Callen, C. B.	Fayetteville
Callen, L. H.	Huntsville
Dixon, C. B.	Kingston
Hart, Geo. W.	Hindsville
Hill, N. J.	Hindsville
Spurgeon, John H.	Marble City, Okla.
Youngblood, F.	Huntsville

MILLER COUNTY

Beck, E. L.	Texarkana
Chace, A. E.	Texarkana
Collum, S. A.	Texarkana
Dale, J. R.	Texarkana
Dale, R. R.	Texarkana
Fuller, T. E.	Texarkana
Grant, R. L.	Texarkana
Hays, Geo. A.	Texarkana
Hibbitts, Wm.	Texarkana
Hunt, Preston	Texarkana
Kelly, K. M.	Texarkana
Kittrell, T. F.	Texarkana
Kosminsky, L. J.	Texarkana
Lanier, L. H.	Texarkana
Laws, S. C.	Texarkana
Lee, A. G.	Texarkana
Lightfoot, J. A.	Texarkana
Mann, R. H. T.	Texarkana
Middleton, B. C.	Texarkana
Montgomery, S. K.	Texarkana
Murry, H. E.	Texarkana
Shirey, W. L.	Texarkana
Smith, J. K.	Texarkana
Webster, H. R.	Texarkana

MISSISSIPPI COUNTY

Barksdale, Oscar	Wilson
Crawford, H. F.	Wilson
Ellis, W. B.	Keiser
Hamner, J. H.	Marie
Harwell, C. M.	Osceola
Hill, E. V.	Blytheville
Howton, O.	Memphis, Tenn.
Hudson, T. F.	Luxora

MISSISSIPPI COUNTY—Continued

Johnson, I. R.	Blytheville
Lowry, S. A.	Luxora
McCall, W. S.	Blytheville
McLean, D. C.	Blytheville
McRae, W. M.	Blytheville
Saliba, J. A.	Blytheville
Sanders, J. F.	Blytheville
Smith, F. D.	Blytheville
Stracy, A. J.	Burdette
Stevens, C. C.	Blytheville
Wilson, C. E.	Blytheville

MONROE COUNTY

Boswell, W. L.	Clarendon
Bradford, T. B.	Brinkley
Bradley, W. T.	Monroe
Darnall, Ernest	Holly Grove
Houston, Matt. F.	Clarendon
McKnight, C. H.	Brinkley
McKnight, E. D.	Brinkley
Miller, J. C.	Blackton
Murphy, F. T.	Brinkley
Murphy, N. E.	Clarendon
Phipps, J. H.	Clarendon
Stallings, W. E.	Brinkley
Stout, T. J.	Brinkley
Terry, P. E.	Blackton
Thomas, P. E., Sr.	Clarendon

MONTGOMERY COUNTY

Freeman, W. D.	Mount Ida
Norwood, F. A.	Mount Ida
Robbins, J. D.	Oden

NEVADA COUNTY

Buchanan, A. S.	Prescott
Buchanan, G. A.	Prescott
Chastain, J. S.	Prescott
Cox, J. E.	Emmet
Gee, S. B.	Prescott
Hesterly, J. B.	Prescott
Hesterly, S. J.	Prescott
Hirst, O. G.	Prescott
McDaniel, T. O.	Boughton
Mendenhall, T. J.	Rosston
Nelms, Chas. F.	Laneburg
Pool, W. B. H.	Bodcaw
Reeder, A. A.	Prescott
Rice, W. W.	Prescott
Whaley, E. S.	Reader

OUACHITA COUNTY

Byrd, E. J.	Millville
Davison, A.	Camden
Early, C. S.	Camden
Henry, H. H.	Eagle Mills
Jameson, J. B.	Camden
Mahan, J. M.	Bearden
McGill, S. D.	Camden
Powell, B. V.	Camden
Purifoy, W. A.	Chidester
Rinehart, J. S.	Camden
Thompson, H. F.	Bearden
Thompson, S. A.	Buena Vista

PERRY COUNTY

Jones, R. A.	Houston
McNeil, M. P.	Little Rock
Reiff, W. L.	Perryville
Tucker, G. E.	El Paso, Texas

PHILLIPS COUNTY

Altman, G. G.	Helena
Bean, J. W.	Marvell
Brown, E. T.	Lexa
Butts, J. W.	Helena
Cox, Allen E.	Helena
Cox, Aris W.	Helena
Eubanks, G. W.	Marvell
Ellis, J. B.	Helena
Fink, M.	Helena
Henry, Morris	Helena
King, J. A.	Mellwood
King, W. C.	Helena
Kultgen, Edward	Elaine
Lee, H. W. A.	West Helena
Nichols, J. W.	Helena
Orr, W. R.	Helena
Parker, Orlie	Elaine
Rightor, H. H.	Helena
Russwurm, W. C.	Helena
Thompson, H. M.	Marvell
Trotter, C. H.	Helena

POLK COUNTY

Connally, D. W.	Hatfield
Dunman, B. E.	Mena
Fletcher, T. M.	Mena
Hawkins, B. H.	Mena
Hilton, J. G.	Mena
Johnson, C. F.	Hatfield
King, E. R.	Alikchi, Okla.
Mullins, F. C.	Grannis
Nelson, C. E.	Cove
Vandiver, W. C.	Mena
Watkins, P. R.	Mena
Young, T. B.	Cove

POPE COUNTY

Berryman, L. D.	Russellville
Brooks, H. C.	Dardanelle
Campbell, J. M.	Russellville
Drummond, H. S.	Russellville
Gardner, L.	Russellville
Haney, A. C.	Russellville
Hays, J. F.	Russellville
Jones, G. W.	Moreland
Linton, A. C.	Hector
Montgomery, W. A.	Atkins
Ross, C. J.	Gum Log
Smith, R. L.	Russellville
Stanford, J. M.	Russellville
Tate, A. B.	Atkins
Webb, G. C.	Atkins
Wright, Jerome	Russellville

PRAIRIE COUNTY

Adams, Edward	DeVall's Bluff
Crow, L. M.	Des Arc
Ellis, C. S.	Hazen
Gilliam, J. C.	Des Arc
Hipolite, F. A.	DeVall's Bluff
Kitley, J. R.	R. F. D. 1, Stuttgart
Lynn, J. R.	Hazen
Parker, James	DeVall's Bluff
Parker, Luke	DeVall's Bluff
Porter, T. G.	Hazen

PULASKI COUNTY

Arkebauer, C. A.	Little Rock
Bailey, W. E.	Little Rock
Barlow, M. J.	North Little Rock
Bathurst, W. R.	Little Rock
Bentley, C. E.	Little Rock
Blakely, R. M.	Little Rock
Bond, S. P.	Little Rock
Bradley, Frances Sage	Little Rock
Browning, H. W.	Little Rock
Calcote, R. J.	Little Rock
Caldwell, R.	Little Rock
Carruth, O. A.	Little Rock
Carruthers, F. W.	Little Rock
Crawford, S. R.	Little Rock
Chesnutt, C. R.	Little Rock
Coon, A. B.	Little Rock
Cunningham, J. C.	Little Rock
Cunningham, J. W.	Little Rock
Daly, M. G.	Little Rock
Darnall, R. F.	Little Rock
Day, E. O.	Little Rock
Davis, E. N.	Little Rock
Davis, J. C.	Little Rock
Dibrell, J. L.	Little Rock
Dibrell, J. R.	Little Rock
Dickinson, M. F.	Little Rock
Dooley, J. B.	Little Rock
Dunaway, W. C.	Little Rock
Eubanks, R. M.	Little Rock
Fly, T. M.	Little Rock
Freedman, Theo.	North Little Rock
French, F. L.	Little Rock
Gann, Dewell, Jr.	Little Rock
Garrison, C. W.	Little Rock
Gray, Oscar	Little Rock
Gray, W. E.	Little Rock
Hardeman, D. R.	Little Rock
Harris, A. E.	Little Rock
Higgins, Homer A.	Little Rock
Hinkle, S. B.	Little Rock
Hodges, E. E.	Little Rock
Hoge, S. F.	Little Rock
Holmes, G. M.	Little Rock
Howell, A. R.	North Little Rock
Hudson, E. M.	Little Rock
Humphreys, Lincoln	Tutuila, Samoa
Hurric, F. E.	Little Rock
Jackson, Geo. F.	Little Rock
Jewell, I. H.	Paris
Jobe, A. L.	Little Rock
Johnston, E. E.	Little Rock
Jones, C. W.	Little Rock
Jones, H. F. H.	Little Rock
Jones, W. E.	Little Rock
Joost, Geo. H.	Little Rock

PULASKI COUNTY—Continued

Judd, O. K.	Little Rock
Kirby, A. C.	Little Rock
Kirby, H. H.	Little Rock
Kirk, C. C.	Little Rock
Kory, R. C.	Little Rock
Kriesel, W. A.	Little Rock
Lamb, W. A.	Little Rock
Law, Ralph A.	Little Rock
Lenow, Jas. H.	Little Rock
Lewis, Geo. V.	Little Rock
McCaskill, M. E.	Little Rock
McCormack, G. A.	Little Rock
McCurry, W. T.	Little Rock
McGill, A. G.	Little Rock
McKinney, A. T.	North Little Rock
McRae, W. M.	Little Rock
Mahoney, P. L.	Little Rock
Manglesdorf, W. F.	Little Rock
Matthews, W. M.	Little Rock
Mav, W. S.	Little Rock
Meek, E.	Little Rock
Miller, W. H.	Little Rock
Moore, R. B.	Little Rock
Murphey, Pat	Little Rock
Oates, Charles E.	Little Rock
Ogden, M. D.	Little Rock
Parmley, L. V.	Little Rock
Patterson, R. O.	Little Rock
Pemberton, E. M.	Little Rock
Pettus, C. S.	Little Rock
Ponder, E. T.	Little Rock
Prothro, H.	North Little Rock
Prothro, E. W.	Little Rock
Reagan, L. D.	Little Rock
Reed, C. C.	Little Rock
Rhinehart, D. A.	Little Rock
Richardson, W. R.	Little Rock
Riegler, N. W.	Little Rock
Robinson, F. C.	Little Rock
Rose, W. D.	Little Rock
Runyan, J. P.	Little Rock
Sadler, W. L.	Little Rock
Sanderlin, J. H.	Little Rock
Saxon, R. L.	Little Rock
Scarborough, J. I.	Little Rock
Scott, C. V.	Little Rock
Scott, Homer	Little Rock
Scroggin, J. H.	Little Rock
Sheppard, J. P.	Little Rock
Shinault, C. R.	Little Rock
Shipp, A. C.	Little Rock
Smith, Morgan	Little Rock
Smith, W. F.	Little Rock
Snodgrass, W. A.	Little Rock
Stover, A. R.	Little Rock
Strauss, A. W.	Little Rock
Switzer, D. M.	North Little Rock
Thames, John H.	Little Rock
Thomas, P. E., Jr.	Little Rock
Thompson, G. D.	Little Rock
Vaughan, Milton	Little Rock
Villars, H. F.	Little Rock
Vinsonhaler, F.	Little Rock
Walt, D. C.	Little Rock
Watkins, Anderson	Little Rock
Watkins, John G.	Little Rock
Wayman, A. K.	Little Rock
Wayne, J. R.	Little Rock
Wayne, W. D.	Little Rock
White, L. W.	Little Rock
Wilkes, E. H.	Little Rock
Witt, Ben M.	Little Rock
Witt, C. E.	Little Rock
York, M. N.	Spring, Texas
Zell, A. M.	Little Rock

RANDOLPH COUNTY

Brown, J. W.	Pocahontas
Hamil, W. E.	Pocahontas
Hughes, W. E.	Pocahontas
Hull, H. B.	Mammoth Spring
Johnson, R. R.	Walnut Ridge
Johnson, T. Z.	Walnut Ridge
Loftis, Jno. R.	Maynard
Pace, L. R.	Pocahontas
Phillips, W. R.	Elm Store
Throgmorton, H. L.	Pocahontas

SALINE COUNTY

Bucklev, E. A.	Bauxite
Crawford, J. B.	Benton
Davis, W. S.	Owensville
Gann, Dewell, Sr.	Benton
Kelly, Warren	Benton
Melton, J. W.	Benton
Phillips, J. M.	Benton
Steed, C. J.	Alexander
Walton, Chas. R.	Little Rock
Walton, J. W.	Benton
Ward, W. W.	Alexander
Wright, J. D.	Mabelvale

SCOTT COUNTY

Bevill, C.	Waldron
Crow, M. T.	Waldron
Duncan, F. R.	Waldron
Duncan, L. D.	Waldron
Jones, Paul	Blue Ball
Sorrell, L. B.	Waldron

SEARCY COUNTY

Baker, A. S.	Snowball
Cotton, J. O.	Leslie
Daniel, S. G.	Marshall
Dickens, G. W.	Leslie
Drewry, Jas. H.	Witt Springs
Fendley, E. G.	Leslie
Goggan, R. E. B.	St. Joe
Hamm, S. G.	Bass
Heard, W. W.	Watts
Henly, J. A.	St. Joe
Hollabaugh, C. B.	Leslie
Melton, A. S.	Marshall
Moore, W. T.	Leslie
Roberts, E. E.	Gilbert
Rogers, W. F.	St. Joe
Wood, E. W.	Marshall

SEBASTIAN COUNTY

Benefield, J. H.	Huntington
Blair, A. A.	Fort Smith
Brooksher, S. L.	Fort Smith
Brooksher, W. R.	Fort Smith
Brooksher, W. R., Jr.	Fort Smith
Brown, E. J.	Fort Smith
Buckley, J. H.	Fort Smith
Bungart, C. S.	Fort Smith
Cooper, St. Cloud	Fort Smith
Davenport, C. P.	Hartford
Dorente, C. R.	Fort Smith
Dorsey, H. C.	Fort Smith
Eberle, J. G.	Fort Smith
Eberle, Walter G.	Fort Smith
Epler, E. G.	Fort Smith
Foltz, Jas. H.	Fort Smith
Foster, J. H.	Fort Smith
Foster, M. E.	Fort Smith
Freer, B. W.	Fort Smith
Goldstein, D. W.	Fort Smith
Hall, C. W.	Greenwood
Hampson, J. K.	Fort Smith
Harrod, R. T.	Grand Prairie, Texas
Harvey, Jno. H.	Fort Smith
Hoge, A. F.	Fort Smith
Holt, C. S.	Fort Smith
Johnson, Hugh	Fort Smith
Johnson, J. E.	Fort Smith
Jones, E. B.	Hartford
King, H. C.	Fort Smith
Klingensmith, W. R.	Fort Smith
McCormack, N. D.	Fort Smith
McGinty, John	Fort Smith
McKelvey, A. A.	Dallas, Texas
Means, C. S.	Jenny Lind
Moulton, E. C.	Fort Smith
Moulton, H.	Fort Smith
Parks, R. F.	Fort Smith
Riddler, P. A.	Fort Smith
Rose, Willis F.	Fort Smith
Ryan, I. A.	Fort Smith
Sims, H. J.	Fort Smith
Smith, H. H.	Fort Smith
Southard, J. D.	Fort Smith
Stuhbs, S. P.	Fort Smith
Taylor, J. M.	Fort Smith
Thompson, H. B.	Fort Smith
Waltz, M. R.	Fort Smith
Warden, L. M.	Huntington
Ware, B. L.	Greenwood
Wilson, Cons P.	Fort Smith
Wolferrmann, S. J.	Fort Smith
Woods, G. G.	Fort Smith
Wyatt, R. B.	Fort Smith

SEVIER COUNTY

Anderson, J. B.	Ben Lomond
Archer, C. A.	DeQueen
Clingan, A. J.	Lockesburg
Dickinson, R. C.	Horatio
Graves, J. C.	Lockesburg
Guthrey, J. E.	Ben Lomond
Kennedy, J. R.	DeQueen
Kitchens, C. E.	DeQueen
Norwood, M. L.	Lockesburg

ST. FRANCIS COUNTY

Alley, W. H.	Forrest City
Bogart, J. A.	Forrest City
Boggan, P. P.	Forrest City
Caldwell, A. B.	Caldwell
McCown, N. C.	Forrest City
McDougal, J. F.	Forrest City
Oliver, R. E.	Newcastle

ST. FRANCIS COUNTY—Continued

Pelton, D. A.	Forrest City
Powell, Clyde V.	Round Pond
Proctor, F. L.	Forrest City
Purnell, R. L.	Madison
Rush, J. O.	Forrest City
Summerford, T. D.	Widener
Winters, W. A.	Widener

UNION COUNTY

Brewer, J. M.	El Dorado
Burns, R. P.	El Dorado
Bush, T. J.	El Dorado
Carter, J. C.	El Dorado
Cathey, A. D.	El Dorado
Elkins, W. N.	Junction City
Fairris, J. H.	El Dorado
Fewks, J. M.	Upland
George, J. M.	El Dorado
Irby, F. L.	Wesson
McGraw, S. J.	El Dorado
McKinney, A. B.	Cargile
Mahoney, F. O.	El Dorado
Mayfield, A. M.	El Dorado
Mayfield, H. F.	Huttig
Miles, W. L.	El Dorado
Mitchell, J. G.	El Dorado
Moore, J. A.	El Dorado
Morgan, T. M.	Shuler
Murphy, Geo. D.	El Dorado
Murphy, G. W. T.	Strong
Niehuss, H. H.	El Dorado
Nolan, J. W.	El Dorado
Purifoy, L. L.	El Dorado
Sheppard, J. M.	El Dorado

UNION COUNTY—Continued

Sheriff, J. P.	Calion
Shudde, W. J.	El Dorado
Slaughter, J. W.	El Dorado
Spears, B. N.	Wesson
Vines, F. P.	El Dorado
Wharton, J. B.	El Dorado
White, D. E.	El Dorado
Wozencraft, W. L.	El Dorado

WASHINGTON COUNTY

Batchelder, F. P.	Farmington
Brewster, J. H.	Prairie Grove
Cannon, J. S.	West Fork
Cooper, T. L.	Elm Springs
Curry, Wm.	Cane Hill
Ellis, E. F.	Fayetteville
Gregg, A. S.	Fayetteville
Harr, H. T.	Fayetteville
Hathcock, P. L.	Lincoln
Henry, R. T.	Springdale
Layson, Z. C.	Fayetteville
McCormick, E. G.	Prairie Grove
Martin, J. E.	Springdale
Miller, Otey	Fayetteville
Mock, W. H.	Prairie Grove
Morrow, F. R.	Fayetteville
Moore, A. I.	Fayetteville
Paddock, C. B.	Fayetteville
Southworth, Jas. R.	Fayetteville
Swift, Chas. E.	Elkins
Walker, J. W.	Fayetteville
Wood, H. D.	Fayetteville

WHITE COUNTY

Abington, E. H.	Beebe
Allbright, S. J.	Kensett
Brewer, T. E.	Antioch
Clark, W. A.	Bald Knob
Gray, D. W.	Searcy
Hardy, F. P.	McRae
Harrison, A. G.	Searcy
Hassell, J. W.	Searcy
Havner, J. B.	Beebe
Huddins, A. H.	Griffithville
Jelks, J. M.	Searcy
Jones, J. L.	Searcy
Little R. L.	Judsonia
McAdams, J. C.	Pangburn
Moore, L. E.	Searcy
Peeler, C. M.	Pangburn
Purnell, F. L.	Georgetown
Runyan, J. R.	Searcy
Tapscott, S. T., Jr.	Searcy

WOODRUFF COUNTY

Biles, L. E.	Augusta
Brewer, E. F.	Augusta
Brewster, B.	McCrory
Brown, E. B.	Cotton Plant
Dungan, C. E.	Augusta
Fraser, R. L.	McCrory
Gephart, R. T.	Cotton Plant
Maguire, F. C.	Gregory
Monroe, U. G.	Hunter
Morris, J. W.	De View
Osborne, J. M.	Howell
Smith, R. N.	Augusta
West, J. H.	Grays

YELL COUNTY

Linzy, C. B.	Plainview
Montgomery, H. L.	Gravelly

County Societies.

PRAIRIE COUNTY.

(Reported by J. C. Gilliam, Sec.)

The Prairie County Medical Society met in regular annual meeting at DeVall's Bluff, October 26, 1922.

Visitors: Drs. Carruthers and Scroggin of Little Rock.

Dr. Carruthers interested the society with some lantern slides, which brought out some very interesting points in reference to the modern treatment of bone and joint deformities.

Dr. Scroggin read a paper entitled "Focal Infection," which was followed by a general discussion. Several Clinical Cases were then reported.

After the scientific program was completed the following officers were elected for the ensuing year:

Dr. Luke Parker, President, DeVall's Bluff; Dr. J. R. Kitley, Vice President, Fairmount; Dr. F. A. Hipolite, Treasurer, DeVall's Bluff; Dr. J. C. Gilliam, Secretary, Des Arc.

The society adjourned to meet at DeVall's Bluff, the last Thursday in May, 1923.

Book Reviews.

A Text-Book of Physiology, for Medical Students and Physicians.—By William H. Howell, Ph. D., M. D., Professor of Physiology, Johns Hopkins University, Baltimore. Eighth edition, thoroughly revised. Octavo of 1,053 pages, 308 illustrations. Published by W. B. Saunders Company, Philadelphia, 1921. Cloth, \$6.50.

This well known text-book has now reached its eighth edition, and as in former ones, we note the simplicity and lucidity in the presentation of facts and theories pertaining to physiology. Matter that seems now to be irrelevant has been omitted, and the new ideas and terminology have been added.

Hay Fever and Asthma. Care, Prevention and Treatment.—By William Scheppegegrell, A. M., M. D. The book is illustrated with 107 engravings and one colored plate. Published by Lea & Febiger, Philadelphia. Price, \$2.75.

This book gives a very interesting description of the history, etiology, prevention and treatment of Hay Fever. From the analysis of one thousand cases he reports that there were seasonable cures in forty-nine per cent of the cases and marked improvement in forty, or satisfactory results in eighty-nine per cent of the total number.

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Original Articles.

THE SIGNIFICANCE OF BLOOD PRESSURE READINGS.*

A. W. Strauss, M. D. Little Rock.

When asked by your secretary to present a paper before this society, I hesitated upon the selection of a subject because I could offer little of an original character. Upon second thought, I decided to offer a discourse on the significance of blood pressure, a subject well known to you, and yet upon which the proper significance is not always placed.

Blood pressure is the expression used for a series of phenomena resulting from the action of the heart. As every heart beat is actual work done by the heart in overcoming resistance to the outflow of blood, this force may be approximately measured in any of the larger arteries. In man it is most conveniently made from the brachial artery. Blood pressure is a valuable aid in diagnosis, and of material help in prognosis; but it is not infallible, neither can it be used alone. It is only one of many links in a chain of evidence leading to diagnosis. It has been badly used and much abused. It has been condemned unjustly when it did not furnish all the evidence. On the other hand, it has brought its crop of evils, particularly when in the hands of charlatans, holding the terrifying phantom of fear over patients. At this point, permit me to say that it is an injustice to a patient, and a sign of ignorance for the physician to diagnose one's case as that of high or low blood pressure. We might just as well make the diagnosis of "headache," "fever," or "fast pulse."

It may be of some interest to you to know that the determination of blood pressure for man began with the attempt of K. Vierordt, in

1855 to measure the blood pressure by placing weights on the radial pulse until it was obliterated. The first useful instrument, however, was devised by Marcy, in 1876. He placed the hand in a closed vessel containing water, connected by tubing with a bottle for raising the pressure, and by another with a tambour and lever for recording the size of the pulse waves. He maintained that when pressure on the hand was made, the point where oscillations of the lever ceased was the maximal pressure and where the oscillations were largest was the minimal pressure. This pioneer work was practically forgotten for twenty-five years. It was not until 1887 that V. Basch devised an instrument which consisted of a small rubber bulb filled with water communicating with a mercury manometer. Later he substituted a spring manometer for the mercury column. Potain then modified the apparatus by using air in the bulb with an aneroid barometer. In 1896, the present rubber bag encased in some non-yielding material, such as silk or leather, came into use. We now have many useful sphygmomanometers, and I do not commend one more than another. The mercury manometers are less likely to vary; but the spring manometers are more convenient, and give better visual observations in the oscillations of the needle. When used, however, a check against the mercury manometer should be made at not too infrequent intervals. The technique for taking blood pressure readings is important, but I shall not consume your time outlining a technique. I do wish to emphasize that readings should be made under similar circumstances as regards position, time of day, relation to meals, exercise, etc.

The arterial pressure in the large arteries undergoes extensive fluctuations with every heart-beat. The maximum pressure produced by the systole of the left ventricle of the heart is known as the maximum of systolic pressure. It practically equals the intraventricular

*Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

pressure. The minimum pressure in the artery, the pressure at the end of diastole, is called the diastolic pressure. The difference between the systolic and diastolic pressures is known as the pulse pressure. The systolic pressure is read at the point where the first audible click is heard, after the cuff is blown up and the pressure gradually reduced. All are agreed upon this point. There has been some dispute as to where the diastolic pressure should be read. Some say it should be read at the fourth phase, and others at the fifth phase. The weight of experimental evidence favors the fourth phase. The five phases are determined by the auscultatory method of taking blood pressure. As the air pressure around the arm is gradually lowered, the series of sounds begin with a rather low-pitched, clear, clicking sound. This is the first phase, and last only a few millimeters fall, when a murmur is added and the tone becomes louder. This click and murmur phase is the second phase. A few millimeters more of drop in pressure and a clear, sharp, loud sound is audible. Usually this tone lasts through a greater drop than any of the other tones. This is the third phase. Rather suddenly a loud clear tone gives place to a dull muffled tone—the fourth phase. The tone gradually or quickly ceases until no tone is heard. This is the fifth phase. The first phase is due to the sudden expansion of the collapsed portion of the artery below the cuff and to the rapidity of the blood flow. This causes the first sharp, clicking sound which measures the systolic pressure.

The second, or murmuring sound phase, is due to the whirls in the blood stream as the pressure is further released, and the part of the artery below the cuff begins to fill with blood. The third tone phase is due to the greater expansion of the artery, and to the lowered velocity in the artery. This tone is clear cut, and in general is louder than the first phase. The fourth phase is a transition from the third, and becomes duller in the sound as the artery approaches the normal size. The fifth or no-sound phase occurs when the pressure in the cuff exerts no compression on the artery, and the vessel is full throughout its length. A very strong third tone phase, or prolongation of this phase, usually means that the heart, which produces the tone is a strongly acting one, although allowances must be made for a sclerosed artery in which there is a tendency to the production of a sharp

third phase. Weakness of the third phase, as a rule, indicates weakness of the heart, and this dulling of the third phase may be so excessive that no sound is produced.

The systolic pressure is the summation of two factors, the force expended in opening the aortic valves (potential), and the force expended from that point to the end of systole, the force which is actually driving the blood to the periphery (kinetic).

The systolic pressure is always fluctuating, as it depends on so many conditions and the calls of the body, except during sleep are many and various. The pressure is lowest during sleep, and gradually arises during the end of sleep, so that on awakening, it is the same as before sleep. Physiologically, there are many conditions which modify the systolic pressure. Sleep, position, meals, exercise, emotional states, often cause wide fluctuations, which may be very sudden. It should be constantly borne in mind, that the systolic pressure reading which is made, is the maximum effort of the heart, at that moment only.

The diastolic pressure measures the peripheral resistance. It measures the work of the heart, potential energy up to the moment of the opening of the aortic valves. It is the actual pressure in the aorta. The diastolic pressure is not very variable; it is not subject to the same influences which disturbs the systolic pressure. It fluctuates as a rule, within a small range. It is not affected by diet, by mental excitement, by sub-conscious psychic influences, to anything like the extent to which the systolic pressure is affected by the action of these factors. The diastolic pressure is determined by the tone in the arterioles and is under the control of the vasomotor sympathetic system. Any agent which causes chronic irritation of the whole vasomotor system produces increase in the peripheral resistance with consequent rise in the diastolic pressure. Any agent which acts to produce thickening of the walls of the arterioles, narrowing their lumina, produces the same effect.

Such states naturally result in increased work on the part of the heart which as a result, hypertrophies in the left ventricle. The increase in size and strength is a compensatory process in order to keep the tissues supplied with their requisite quota of blood. Conversely, paralysis of the vasomotor system produces fall of diastolic pressure which, if long continued, results in death.

The diastolic pressure then is of importance for the following reasons:

1. It measures peripheral resistance.
2. It is the measure of the tonus of the vasomotor system.
3. It is one of the points to determine pulse pressure.
4. Pulse pressure measures the actual driving force, the kinetic energy of the heart.
5. It enables us to judge of the volume output, for pulse pressure which is only determined by measuring both systolic and diastolic pressure, is such an index.
6. It is more stable than the systolic pressure, subject to fewer more or less unknown influences.
7. It is increased by conditions which increase peripheral resistance.
8. The gradual increase of diastolic pressure means harder work for the heart to supply the parts of the body with blood.
9. Increased diastolic pressure is always accompanied with increased pulse pressure, and increased size of the left ventricle.
10. Decreased diastolic pressure goes hand in hand with vasomotor relaxation, as in fevers, etc.
11. Low diastolic pressure is frequently pathognomonic of aortic insufficiency.

12. When the systolic and the diastolic pressure approach, heart failure is imminent, either when pressure picture is high or low.

When all these factors are taken into consideration, it becomes apparent that the diastolic pressure is most important, if not the most important part of the pressure picture.

Up to within a very brief time, all the statistical evidence of blood pressure was based on the systolic readings alone. This data is most valuable and much has been learned as to diagnosis and prognosis, but it is a mass of data based on a one-sided picture and can not be as valuable as these statistics which will undoubtedly be published later when all the pressure pictures can be analyzed.

HYPERTENSION.

Hypertension means high pressure, and yet it carries with it a suggestion of high pressure which is harmful to the individual. As a matter of fact, hypertension is a compen-

satory process, it is often a saving process in spite of the fact that it carries possibilities of harm in its possessor.

Hypertension is the expression on the part of the circulation to meet new conditions in the tissues so that all tissues will be nourished and all will be enabled to function. Looked at from that point of view it is conservative process, and in many cases it is. It is not an average normal state, but it is a normal state for the man who has it in a chronic form. Hypertension should be viewed rationally and its proper place in the whole make-up of the patient determined. Hypertension is a relative term. What might be high-pressure in a man of sedentary habits who reaches the age of fifty, might not be high pressure in a full-blooded formerly athletic man of the same age.

In hypertension, the following has been noted:

1. In all high pulse pressure cases, there is increase in the size of the cavity of the left ventricle. The ventricle actually contains more blood when it is full, and throws out, therefore, more blood at each systole.

2. In all high-pulse pressure cases, there is actual permanent increase in diameter of the arch of the aorta. This is a compensating process to accommodate the increased charge from the left ventricle.

3. In all high-pulse pressure cases, one will find on careful auscultation over the manubrium, particularly in its lower half, breath sounds, which vary from bronchial to intensely tubular.

4. In all high-pulse pressure cases, in which the pulse pressure is over seventy mm. of mercury, there is increase in the size of all large distributing arteries.

Chronic hypertension may be classified into three groups:

Group A—Chronic nephritis.

Group B—Essential hypertension.

Group C—Arteriosclerotic hypertension.

Group A: *Chronic Nephritis*. These are the cases with a high pressure picture; that is to say, high systolic (200), and high diastolic (120-140). The pulse pressure is much increased. The palpable arteries are hard and fibrous. There is a puffiness of the under eye-lids, which is more pronounced in the

morning on arising. Polyuria with low specific gravity and nycturia are present. There are almost constant traces of albumin in the urine, with hyaline and finally granular casts. The natural end of patients in this group is either uremia or cardiac decompensation (so-called cardiorenal disease). Cerebral accidents may happen to a small number.

Group B: *Essential Hypertension*. This group includes the robust, florid exuberantly, healthy people. They often are heard to boast that they have never had a doctor in their lives. They are usually thick-set or very large, fleshy people. The pressure picture is exceedingly high. The pulse pressure is moderately increased. The arteries are rather large, fibrous and often quite tortuous, although this is not always the case. There is no puffiness beneath the eyes, no polyuria, and no nycturia, as a rule. The urine is of normal amount, color and specific gravity. Albumin is only rarely found and then in traces, but careful search of a centrifuged specimen invariably reveals a few hyaline casts. The phthalein excretion is normal or only slightly reduced. The kidneys excrete salt and nitrogen, normally. It is in this group that apoplexy is found most frequently. The rupture of the vessel occurs when the victim is in perfect health, often without any warning. Occasionally when such a case recovers, sufficiently to be around, cardiac decompensation sets in later and he dies of cardiac complications.

Group C: *Arteriosclerotic Hypertension*. The cases are usually over fifty years old. They are men and women who have lived high and thought hard. Often they have had periods of great mental strain. Many men in this group were athletes in their young manhood. Many have been very heavy drinkers, although never drinking to excess. They are usually well nourished and inclined to stoutness. The pressure picture is high systolic with normal or only slightly increased diastolic and large pulse pressure. The arteries are large, full, fibrous, usually tortuous. The heart is very large. The apex far down and out. There is no polyuria; nycturia is uncommon, quite the exception. The urine is of normal color, amount, and specific gravity. Albumen is only rarely found and hyaline casts are not invariably present. The phthalein excretion is quite normal and the excretions of salt and nitrogen are also normal.

The terminal condition in most of the patients in this group is cardiac decompensation.

HYPOTENSION.

When the pressure is constantly below normal it is called hypotension. This may be transient—as in fainting—it may be a normal state of the individual. It occurs in most fevers and in a great variety of diseases, including anemias.

In typhoid fever the maximum blood pressure during beginning and convalescence may be as low as 65 mm. h. g.

Meningitis is the only acute infectious disease in which the blood pressure is more often high than low.

In pleurisy with effusion and in pericarditis with effusion, there is hypotension.

Collapse, whether from poisoning by drugs, or as the result of dysentery, cholera, or profuse vomiting from whatever cause, reduces the blood pressure.

In cachectic states, such as cancer, the blood pressure is low.

A most interesting and important condition in which hypotension occurs, is pulmonary tuberculosis. It is universally found in advanced cases. Often in early or suspected cases, before there are physical signs of the disease in the lungs.

Hypotension, when it is present in tuberculosis, increases with an extension of the process. Recovery from hypotension accompanies a rest or improvement.

Before closing, I wish to briefly discuss blood pressure findings in the following cases:

Head Injuries—It is of value in differentiating the simple fracture from uremia. Of course, a case of uremia might suffer a fracture.

Shock and Hemorrhage—In shock the blood pressure is low, but the pulse pressure drops to abnormally low figures. It seems to me that the blood pressure instrument has its greatest value in surgery, in the warning it gives to the operating surgeon in cases of impending shock. A sudden drop in pressure picture may mean a large hemorrhage. The gradual return of the pressure picture means that the vasomotor mechanism has acted to keep up the pulse pressure. Should the diastolic pressure continually fall, it may mean that the hemorrhage is still taking place.

In Obstetrics—The blood pressure should be taken frequently during pregnancy. The usual and highly essential precautions in taking pressure in general apply particularly in these cases. Toward the end of pregnancy, the pressure should, if possible, be taken daily, and oftener if necessary. A gradually rising pressure precedes albuminuria, as a rule. All are agreed that the most significant change is the gradual but sure rise from a low pressure. When this is combined with albuminuria, the danger of toxemia is imminent.

Valvular Heart Disease—No rules can be laid down for blood pressure in valvular heart disease. Aortic stenosis, the rarest of the valvular lesions, is practically always accompanied with high pressure picture. Mitral stenosis, on the contrary, usually shows a low pressure picture. Mitral insufficiency may show an exceedingly low picture or an exceedingly high picture. Aortic insufficiency also may be accompanied with a high systolic or by a normal systolic pressure. It is characteristic of all cases of aortic insufficiency that the diastolic pressure is low, even as low as 30 mm. The pulse pressure is invariably high. Usually there is no difficulty in determining the diastolic pressure. The intense third tone suddenly becomes dull at the point of diastolic pressure and frequently the dull sound can be distinctly heard over the artery down to the zero of the scale.

The value of blood pressure readings in pneumonia goes without saying. Nothing is of greater prognostic value and nothing more clearly pointing out when to use measures for supporting the circulation.

In conclusion, I wish to state that in spite of many disappointments in the use of the sphygmomanometer, I consider it one of the most useful instruments in the physician's armamentarium—one that should be used routinely and its evidence weighed carefully along with other findings.

DISCUSSION.

Dr. C. J. March (Fordyce): Dr. Strauss' paper was very interesting and instructive to me, and does not leave anything for anybody to talk about. I think he is right in saying that the diastolic pressure is more valuable in prognosis than the systolic pressure.

As to the instrument for taking blood pressure, I prefer the mercury manometer.

Dr. Frank B. Young (Gering, Neb.): The question of blood pressure is one that has not yet been settled in any of its relationships, either on the question of hyper or hypo. There is a very

definite idea now as to the various factors in increasing blood pressure, but the important questions in blood pressure to be taken up at the present time bears on those cases in which the blood pressure is unduly low. I think, if we continue to study this question for a few years more, we shall know a good deal more about those various factors.

I have under observation at the present time, a doctor's wife, who has had pyelitis for a considerable time. A short time ago she blew up with an acute appendix, which I removed, gangrenous, but not quite ruptured. When the doctor brought her in he told me that he had been taking her blood pressure for a number of years and had never found it as high as 100. At the time she came under my observation it was reduced to 80-40. The woman, aside from the acute exacerbation of chronic pyelitis, is apparently in perfect health. There is no lung or any other trouble that we can make out, except the pyelitis.

I think it would be well for us to study the various factors in lowered blood pressure. I think when we understand the functions of the various ductless glands, when we become more familiar with the endocrines, we will get a great deal of information as to high blood pressure and particularly as to abnormally low blood pressure.

Dr. W. D. Rose (Little Rock): I am convinced that variations in the diastolic pressure possesses greater significance than similar fluctuations in the systolic pressure. Moreover, when a high diastolic pressure is recorded, it is of great importance from the viewpoint of prognosis and treatment to determine whether this increase is due to functional angiospasm or to organic disease of the arterial system. When, on the other hand, we encounter a low diastolic pressure in association with a normal or heightened systolic pressure, we should be instinctively reminded of the possibility of aortic regurgitation.

We record blood pressures extensively in dealing with valvular lesions, but the lesions themselves exert little effect upon the readings. Our readings in these cases do, however, afford accurate information in many instances of the state of the heart muscle. In drawing conclusions from the blood pressure in these cases it is well to remember that the normal relation of the systolic, diastolic, and pulse pressures is 3:2:1. On this basis a high systolic pressure which is accompanied with an increased pulse pressure usually is indicative of adequate compensation by the heart; whereas, an approximately normal systolic pressure with a diminution in the pulse pressure points to threatened cardiac failure. In general, very large pulse pressures point to aortic regurgitation or chronic nephritis.

The effects of endocrine disturbances upon blood pressure readings have not been definitely established. More work is needed along this line before concrete rules can be laid down.

I believe that the proper point for recording the diastolic pressure is the fourth phase, though the reading may be made at the fifth phase if six points are added to the reading thus obtained.

Dr. Wm. Thos. Coughlin (St. Louis): There is a subject there that I believe is of very great importance to the surgeon. The doctor's paper is of such far-reaching extent and of such thorough scope that I could not begin to discuss the paper. But I do feel that the blood pressure reading is of great interest to me before an operation. I stumbled on to it about 1908, and I have been watching very closely since then, and I believe it is of importance to know it before operation.

Now, the blood pressure in the ordinary adult is 120-80 or thereabouts. I want to refer particularly to the relationship that should exist between the diastolic and systolic pressure. The normal relationship, if you accept those figures as being normal, ought to be a difference of one-half of the diastolic.

I first noticed that a patient who had a very wide differential pressure was a very poor surgical risk; that such patient is very prone to stand an operation very badly. He shocks more, and he is liable to go into collapse within a few days after the operation. It has occurred in a patient in whom the internist could not find any reason for the difference, and at autopsy there was not found any reason for that difference. The pathologist found nothing the matter with the heart muscle. But I do know, when we came to look over the record before operation, we found that he had a differential pressure that was greater than the diastolic. We thought that there was something the matter. On investigating him, we failed to find anything the matter with him. The patient went into shock shortly after the operation, an operation on the stomach, and he died. If we didn't have an autopsy, one would think that he died of hemorrhage. Before that time I had thought that the deaths from shock were nearly always due to hemorrhage. There had not been any loss of blood and there wasn't any loss of blood after the operation. So, we have come to watch it right along.

Whenever I find a patient whose differential or pulse pressure is more than one-half of his diastolic pressure, regardless of what the figures, diastolic and systolic, actually are, why I feel that I have to deal with a patient who will not stand an operation very well. He will not stand the operation as well as he apparently ought to, and that may sometimes influence one with regard to the choice of anesthetic.

The blood pressure in cranial injuries is of very great importance. It is of such importance that, given a patient who has not evidence sufficient to warrant an immediate operation on his head after a fracture of the skull, if we find that patient's blood pressure normal or nearly so, we think that there is no indication for intervention. If we find the blood pressure is going up, and the pulse is going down, we think that there perhaps ought to be some intervention, or at least, it must be considered, and we take it as an evidence of rising intracranial tension. And, for that reason it is something that is read off every few hours for the first several days until one finds or thinks that the patient is well out of danger.

With regard to the blood pressure in hemorrhage, it astonished me very much to find that a patient could have two or three quarts of blood, or apparently that much—perhaps blood and serum mixed—in the abdomen and yet that patient have a blood pressure of 150.80, or something like that. I have seen that happen. A patient with a ruptured tube may have a high blood pressure, and be bleeding to death. I can't explain it except perhaps by analogy in peritonitis. After a patient has been operated if he should develop peritonitis, one of the first signs of the infection is an up-going blood pressure, in a very, very large percentage of cases. While, if something after the operation suddenly gives away, or if a twist in the bowel occurs, we notice that there is a sudden fall in blood pressure. It often happens that, after the operation, things go well for twenty-four hours or so, and then suddenly

something goes wrong. When something goes wrong, whether it is hemorrhage or whether it is a slipping of the suture or a giving away of the stitch line or something of that kind, there is a drop in the blood pressure. Even if it be hemorrhage, the pressure is likely to catch itself and go on up again for a while. But it does not last so long in hemorrhage as it does if the patient has developed peritonitis, when his blood pressure may continue to be high for as much as forty-eight hours after the onset of the peritonitis.

Dr. Chas. W. Dixon (Douglas): My observations have been that high blood pressure is the result of the clogging of our glandular structures. And where we get a great differential in the systolic and the diastolic, if we will clean out the glandular structure, keep it clean, and with proper diet, you will get a reaction with a proper and adjusted differential, which will give relief from the symptoms which exist with a high blood pressure or a high differential.

Dr. A. W. Strauss (closing): I wish to thank you for the free discussion elicited. I believe that one of the most commonly accepted theories of the cause of high blood pressure is that there is some endocrine gland which may be at fault. We know, for instance, that we can raise the blood pressure by suprarenal extract. As I said before, there is so much unknown about the endocrines that I thought I would rather not enter into a discussion upon that phase. They are going so far now as to blame the suprarenal capsule for a lot of our troubles.

I am glad Dr. March and Dr. Rose saw fit to make the same observations that I did. It is very gratifying to me. I appreciate also a great deal the discussion from such an eminent man as Dr. Coughlin. The cases that he was describing are unquestionably of a vasomotor character. Just why these vasomotor phenomena occur, I am not as yet prepared to state. Probably some hormones, or again the question of endocrines may come into play, which causes dilatation or contraction, as the case may be.

I don't believe Dr. Dixon is quite right, though I am glad to see that he is strong for elimination. Elimination, I think, is a very important thing in the average run of hypertension cases, but I don't believe that any clogged organ, so to speak, will raise the blood pressure. I can't believe, for instance, that in chronic interstitial nephritis, just because the arterioles or the blood vessels of that kidney are smaller than normal, and we have a contracted kidney, that the contracted kidney per se will increase the blood pressure. I don't believe that, or that you can take a small group of vessels, and when they contract, that they will raise the entire circulatory apparatus. I believe it is quite essential, however, to keep up elimination in all of those cases.

WHO'S EFFICIENT NOW?

Uncle Sam may owe arsphenamine (salvarsan) to Germany, but he has improved it a lot since he took over its manufacture some years ago. Today, says the U. S. Public Health Service, it and its fellows pass tests that are twice as rigid, which means that the drugs themselves are twice as safe as they ever were before.

EARLY RECOGNITION OF CARCINOMATA OF THE CERVIX.*

Dewell Gann, Jr., M. D., F. A. C. S.,
Little Rock, Ark.

As a sequel to the Cancer Week put on by the American Society for the Control of Cancer, in which it was proposed to teach the people the importance of its early recognition, since in its early recognition lies the hope of cure, is it not timely that we should launch a campaign in the medical journals on the differential diagnosis and proper treatment of this disease?

The campaign against cancer waged by the Arkansas State Committee for its control is beginning to show its effect. During the past year the message of cancer control has been carried to practically every doctor and nurse in the State and many hundreds of our people. Just at this time an effort is being made to effect an organization to be known as a County Cancer Control Committee in every county in the State. The date set for the next annual Cancer Week is November 12-18. It is hoped by that time that our organization will be complete in every detail.

That cancer is increasing at an alarming rate there can be no doubt. An increase in the death rate of two and one-half per cent per annum can hardly be accounted for by better kept statistical returns. It is estimated that 100,000 people in the United States will die this year from this disease. Of this number approximately 15 per cent will die of cancer of the uterus. We, as a profession, are in part responsible for this condition and it is largely to stimulate your interest that this paper is presented.

I have before me the records of twenty-five cases of carcinomata of the cervix uteri that have recently come under my observation. It is surprising to note the number that have applied to their family physician with a complaint of an unusual discharge or bleeding, before or after the menopause, who were given prescriptions but no examinations. One case is very striking, having been under the direction of three different physicians for a period of almost two years before she was examined by the fourth who told her she had an inoperable carcinoma of the cervix and referred

her to the fifth, who in turn told her she not only had an inoperable, but an incurable carcinoma of the cervix. Another, ten years after the menopause, after a severe hemorrhage required examination and packing, was told that she had enlarged veins of the womb similar to the ones she had in her legs, and if the hemorrhage recurred it might be possible she would have to undergo an operation. Only a short while ago a case came to my office with a note from our esteemed friend, Dr. Henry Thibault of Scott: "I am referring whom I saw for the first time today. She has a carcinoma of the cervix involving the rectum She has been treated for a year by one of your co-citizens without *any kind* of a physical examination. The treatment has been directed against piles which she has never had." These are not isolated selections and if I would so occupy your time I could continue, but seeing just such cases almost daily, would lead one, although it be far from his purpose to criticize, to think himself at least, derelict in his duty if he did not plead for these unfortunates. No man, however hard his heart may be, who has ever carried an individual to a cancerous death, desires a repetition.

Before entering upon the topic of discussion I would like to give you a quotation from Rawls in which he reports on the examination of cervical tissue removed at operation in a series of 466 cases. Seventy-six per cent of the specimens showed cervical changes other than simple lacerations. The changes occurred in their order of frequency as follows: Erosion, cervicitis, hyperplasia, endocervicitis, circulatory disturbances, precancerous changes and carcinoma. No reference is made to tuberculosis or syphilis in this series.

These changes are so commonly observed by all of us that a discussion of their differential diagnosis will not be attempted at this time. Whether or not the carcinomatous process begins in the squamous cells covering the vaginal portion of the cervix or the mucoid cells lining the endocervix and abortive glands makes little difference as regards the symptomatology of the disease.

Associated with the neoplasia in the early stages of carcinoma of the cervix is a hyperemia of the parts. This hyperemia is responsible for the first symptom of a cancerous change, whether it be an increase in the quantity, but not necessarily quality of an

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already present leukorrheal discharge, or unusual bleeding. In reviewing the records of the twenty-five cases referred to above it is noted that in women who have not passed the menopause the leading or first symptom has been some noteworthy change in the discharge. In women who have passed the menopause, unusual bleeding, commonly spoken of by the patient as "spotting," has been the leading symptom. As the condition progresses and the walls of the blood vessels are infiltrated by the cancer cells, the discharge, heretofore changed only in quantity, becomes blood tinged, or serosanguinous, in nature. This change is of sufficient import to demand an examination on the part of the attending physician. No case of cancer of the cervix should be permitted to develop beyond this point. My observation has been that if the history is carefully and painstakingly developed it will reveal that it was not long after the appearance of the "blood tinged discharge" until an unusually foul odor, indicating tissue destruction, was noted. In an experience of more than two hundred cases of this disease the objective findings have not once failed to check up this observation.

Pain is a late symptom of cancer, not only of the cervix, but in any part of the body and is further evidence of tissue destruction and invasion of the surrounding parts. This is indeed unfortunate since pain is usually the symptom that brings the patient to the doctor and were it an early symptom of cancer, we would not have the trouble we now experience in getting the cases before reaching an incurable stage.

Therefore, as I said to you in Eureka Springs in 1920: "Any discharge, before or after the menopause, that becomes more profuse, more foul or more irritating is suggestive of cancer. Menorrhagia and metrorrhagia are pathological and contrary to a more or less general belief are not necessarily associated with the menopause. Menorrhagia is not nearly so commonly associated with a malignant change as metrorrhagia or intermenstrual bleeding, but any uterus that gives evidence of unusual bleeding is potentially malignant and should be so considered until it is proven definitely otherwise."

These admonitions may seem a little harsh, but when we remember that during the year 1921 the cancer death rate in the city of New York approximated that of tuberculosis and in our own State the cancer death rate in-

creased approximately eighteen per cent in 1920 over 1919, it would behoove all of us to take a little more interest in the incidence of this formidable disease, the scourge of humanity.

By means of curetage and excision of portions of the cervix any uterine malignancy should be diagnosed within one week after being seen by the surgeon. It positively is not as harmful to remove a portion of the cervix or curet the fundus to obtain tissue for biopsy as it is to await developments. Certainly the time has arrived when we all know if there is no question about the diagnosis without the aid of the microscope the case has reached the stage for prayer.

I have limited the discussion in this paper to carcinoma of the cervix for the reason that carcinoma of the fundus is an entirely separate and distinct entity as concerns its treatment. It has the same early symptoms as carcinoma of the cervix and from the viewpoint of treatment may be disposed of in one word, panhysterectomy.

Up until the last decade the treatment of carcinoma of the cervix has been considered surgical, and even now, in the minds of a few, is debatable. It is a well known fact that Dr. Howard Kelly was the first to advocate and has long continued the use of radium in preference to surgery in the treatment of carcinomata of the cervix.

In January, 1920, Dr. Louis Ransahoff published an article in the Journal of the American Medical Association in which he wrote: "I do not hesitate to state that in my opinion radium treatment should entirely supplant operation, not only in inoperable cases, but in operable cases of cancer of the cervix. Skel has recently published a very able presentation of the subject of cancer of the cervix. In this paper he publishes the replies of some of our prominent surgeons to the question: "What cases of cancer of the cervix should be submitted to the Wertheim operation?"

Dr. John G. Clark writes: "I would say that I have almost reached the point where I believe radium is the best treatment for all cases regardless of the extent of the lesion." A letter from Dr. W. J. Mayo, dated July 9, 1921, states: "The Wertheim type of operation has today only a small field of usefulness. Personally I have not done one in three years. Radium is taking the place of the extensive operation for the cure of carcinoma of the

cervix with the exception of very early cases and it is possible that it will soon be the method of choice in all cases, either alone or combined with operation."

A personal communication from the Mayo Clinic signed by Dr. William R. Meeker, formerly our State Pathologist, dated March 15, 1922, states that all cases of carcinoma of the cervix are now referred to radium for treatment, from the earliest to the most extensive. Therefore, to me, it does not seem unfair to continue to plead for the treatment of these cases with radium to the exclusion of surgery.

Surgery, or the knife as the laity express it, is a nightmare to the human race. How many people, our profession not excluded, willingly submit to operation? Surgery is so well known in connection with the treatment of malignant disease that I often wonder how many women who know they have cancer refuse to come for advice because they fear operation. Only a few weeks ago I was called to see one of our leading public health workers who was in the terminal stages of this disease. I said, Mrs., informed as you are on diseases of this kind, you must know your condition. Why have you permitted this delay. Her answer was, "I knew if I called you or Dr. you would say, 'You must go to the hospital for immediate operation,' and I had rather die!" And she did die for the lack of proper information and guidance.

If we could only give our consent, and most of us have, to the treatment of these cases with radium to the exclusion of other methods and inaugurate an active campaign to teach the people our decision, countless lives that are now sacrificed would be saved.

Women have the impression, often fostered by doctors' opinions, that the troubles they have incident to the climateric period are natural, when really it is the expression of the result of an abnormal general condition with the local manifestation often associated with trauma or infection.

Cancer is not contagious and is not a local entity. It is always a constitutional malady, often associated with additional disturbance at the local point. Surgery, radium and x-ray will sometimes remove all the cancerous cells, but never removes the underlying conditions that make it possible for the cancer to exist; in other words, the cancer cells are outlawed cells in an abnormal body. Their sim-

ple removal never restores the organism of the patient to a normal condition.

Instead of educating people to wait until they find some local lesion, and then go to the hospital for operations, why not teach them to understand that they all come to distress sooner than they should on account of the lack of intelligent management of their bodies each day. Certainly this kind of care should be as legitimate in medicine as in business; one representing life, the other representing money.

I am glad to know that there is a man, possibly as competent to handle cancer patients as any other man in the world (Dr. L. Duncan Bulkley, senior physician to the New York Skin and Cancer Hospital, and of forty years experience), who works upon the basis that cancer is not a surgical disease, but a constitutional disturbance and should be treated more by the physician than the surgeon.

Every symptom that lasts six months or more, unless there is some special reason why, is dependent largely on the abnormal cell-building process, and it is more positively so with the man or woman over forty years old. Every man and woman over forty years are chronics whether they know it or not.

DISCUSSION

Dr. E. E. Barlow (Dermott): I have not used any radium myself. I have referred several patients to Dr. Gann, and the results that he has obtained have certainly been very satisfactory indeed. The cervix is accessible to radium treatment and, in my opinion, it is by far the best treatment for cancer of the cervix.

I think the Wertheim operation is very mutilating, and after it has been done I have never seen very good results. Years ago I saw Dr. Kelly and his associates do a number of Wertheim operations, and they certainly were not successes.

Dr. R. L. Saxon (Little Rock): I recall about seven years ago at a meeting in Forrest City of the Third District Medical Society, I tried to read a paper on this subject, and Dr. Gann braced me up a little bit and offered, as a substitute for the knife, radium. At that time radium was in its infancy, and in this section of the country had been tried but very little. I was contending with my colleagues and insisting on early diagnosis, early and thorough examinations, and to send them in, in order that we might be able, with the knife, to eradicate all the cancer cells. I don't feel like letting this subject pass over without reminding him especially, that we were hammering along the same line, trying to do something for alleviating this disease about seven years ago.

I am glad to have heard his paper on the subject, and especially glad to note that radium is making such progress.

I was interested in the same subject at the Southern Medical meeting last fall in Hot Springs. I gathered from the papers and discussions there and the reports submitted, that we are well divided on the question as to whether or not radium will cure all of these cases. Of course, it takes a long time to eradicate an old idea from a bunch of fellows as stubborn as doctors are; but I shall be glad myself at any time to turn over all these cervical cancer cases, carcinomata, etc., to the radium treatment, because very often, or most all the time, if they are advanced as they usually are when they come to see the surgeon, after you have done your Wertheim or any other operation you may choose, you will see this case again later on when you have to pass it up and pronounce the death knell.

I want to mention another phase of his paper, however. I doubt very much that the cancer increase in the human race today is over that of former years. I can not get through my understanding how this could be. We are taking better care, or we are supposed to, of our women. So, if that be true, I can not understand how we would have an increase of cancerous conditions in the human race today unless we admit that we are going backwards. We think we have got a better profession, we think we are taking better care of our people, and looking after diseased conditions better than we did in former years. Therefore, I say that the reason for this increased percentage is that our doctors are looking more closely and are more observant and alert to the conditions, and the raise in the percentage comes about in that way. I repeat, I don't believe that cancer incidence is over that of former years.

Dr. W. R. Brooksher (Fort Smith): There are just two points in this paper that I would like to emphasize. One is the question of diagnosis, and a diagnosis early. I do not believe that there is any other disease with which the doctor comes in contact in which early diagnosis means so much as in cancer of the cervix. I don't believe that there is any other disease which we come in contact with that is so fatally neglected. Our doctors don't attempt to examine them early. I don't know why and you don't. You don't examine them, and neither do I. But, if you want to save these patients, you must examine them early. My candid opinion is that an early examination, with a very early diagnosis and proper radium treatment, will cure a large percentage of these cases. I won't say a 100 per cent, but there is no good reason why it should not be 100 per cent. If the diagnosis is made early enough and if proper treatment is applied, I believe we should have 100 per cent recoveries. I am sure a good large percentage of them might be cured.

The next point is the proper amount of radium, and the proper treatment. I think the mistake heretofore has been in not using enough radium. Your first treatment is your important treatment. You want to kill the disease the first time, or come very near doing it. You put a small quantity of radium in and you devitalize the tissues immediately around the capsule of radium. Your patient comes back again, and you introduce your radium again and your increased treatment is expended mostly upon tissues already devitalized. The first thing you know you have a radium ulcer that is extremely hard to manage, and you have lost the opportunity to cure that patient. I have had a little experience with it, and I think that this is one of the greatest faults.

In giving your radium treatment, give them a large quantity at first and you will have very

much better results. I think at least 100 mm. ought to be used in any case of cancer of the cervix, and for as long a time as you dare to use it. Because, as I said, when you go to using your second or third treatment, you are getting your intensified effect on devitalized tissue, and if you are not very careful you are going to have very bad results.

Dr. Dewell Gann, Jr. (in response): I would like very much to go into the treatment of cancer of the cervix with radium, but I feel like there are some other men to be heard from, and I think I have had my say.

THE X-RAY TREATMENT OF TONSILS AND ADENOIDS.*

J. D. Southard, M. D., F. A. C. S., Fort Smith.

Since the discovery that the x-ray has a selective action on living tissues, the field of its application and usefulness in therapeutics has been, and still is being, greatly extended. That a given dose will destroy disease tissue without injury to the healthy parts through which it passes is no longer to be questioned. That in doses which do not injure the surrounding healthy cells, it will absolutely and entirely destroy all lymphoid tissue is the common knowledge of all who are experienced in x-ray therapy. This fact was first demonstrated in the treatment of enlarged tuberculous lymphatic glands, especially about the neck, which, as is well known, yields very readily to treatment with the x-ray. And so with proper technique it has been determined and proven to be a positive and reliable cure for adenoids and enlarged tonsils. Not only so, but it removes all lymph nodes so often seen on the posterior pharyngeal wall and about the tonsils, even when the tonsils are but slightly or not at all enlarged, causing more or less soreness and discomfort. I have cured a number of such cases who informed me that they had been advised to have their tonsils removed.

I wish to quote from an article by Dr. W. B. Witherbee, recently published in the New York Medical Journal. Dr. Witherbee is head of the department of x-ray therapy of the Rockefeller Institute for Medical Research, New York City. I think there is perhaps no better or higher authority upon this subject. His statements are based upon the results of treatment of thousands of cases, more than five hundred of which were in his own department. He says: "The x-ray method

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of treating chronic focal infection of the throat; namely, tonsils and adenoids, is not only safe and permanent, but will more thoroughly and completely remove this focal infection than any other method yet devised, surgical or otherwise, and furthermore, the contraindications for operation in no way interfere with this procedure. The principle upon which this method is based may be stated as follows: Both lymphatic and embryonic tissues are more easily destroyed by the x-ray than any other living cell. The enlarged tonsil consists mainly of lymph tissue. The small fibroid tonsil so commonly associated with rheumatism contains lymph follicles, the greater part of which is embryonic tissue. The embryonic tissue in the follicles of the large lymph tonsil is less than is found in the fibroid tonsil. The remainder of the tissue in these follicles consists of mature lymphocytes. Therefore, it is possible to use very small doses of x-ray to promote the absorption of the lymphatic element of the tonsil which will in no way interfere with any of the surrounding and adjacent healthy cells or glands.

"From the viewpoint of infection the shrinkage of the tonsil and lymph tissue of the lateral and posterior walls of the throat by x-ray will produce a drainage and relieve the distortion of the crypts throughout the entire mucous membrane, which is impossible by any known operative procedure.

Out of thirty-six cases in which specimens from the crypts were taken thirty-two showed an absence of hemolytic streptococcus and hemolytic staphylococcus. This coincides with the results which have so long been obtained by Dr. Kennon Dunham, of Cincinnati, in the treatment of carbuncle. Recently Dr. Hickey, of Detroit, has carried out this treatment in a series of diphtheria carriers in which he was able to rid the throat of diphtheria bacilli in from two to four days and this occurred in eighty per cent of the cases treated.

"This method, as compared with surgical removal of tonsils and adenoids, is free from serious complications. Following surgical removal one may have all the conditions which arise from circulating septic emboli; lung abscess, empyema, phlebitis, endocarditis, hemorrhage, middle ear infection and mastoiditis may also complicate recovery. In the x-ray treatment there are no known complications provided the technique is faithfully carried out. The permanency of the results, as

well as the safety of this method, can easily be checked up by any man who in the past ten years has treated a number of tuberculous glands of the neck with the x-ray.

"The same treatment is used for tuberculous glands of the neck and toxic goitre, the only difference being in the area exposed; in the goitre case we expose both the tonsil and the thyroid gland, and in the tuberculous gland, the tonsils and glands involved. Whether an infected throat has anything to do with the toxic goitre is a debatable point.

"We have encountered two cases of concealed abscess of the tonsil in our series of five hundred cases, revealed by the shrinkage of the tonsil. Both patients were suffering from rheumatism and in both instances the rheumatism was relieved in the early part of the treatment. These abscesses are completely circumscribed and walled off by fibrous tissues and are therefore inert. In one of the cases the abscess ruptured and drained about three months after treatment. The fibrous tissue remaining after x-ray treatment and the incapsulation of these abscesses point out the fact that we leave only that type of tissue which nature utilizes in her defense against infection. This method is especially indicated in chronically infected throats in vocalists, since the muscular reconstruction of the throat is minimum as compared with that following surgical removal of tonsils and adenoids; also in those cases associated with rheumatism, chorea, diabetes, chronic endocarditis, hemophilia, or any condition contraindicating operation."

Nature has put tonsils in most people's throats for some purpose, probably to perform some more or less important function, even if its nature is unknown to us. The x-ray treatment destroys only the diseased tissues, leaving the healthy portion of the tonsil to perform whatever function it was put there to perform. When tonsils are removed by a surgical operation the patient must undergo not only the danger of an anesthetic, hemorrhage, infection and others as mentioned by Dr. Witherbee; but more or less lymphoid tissue is left in the post nasal space and pharynx to cause further trouble and perhaps subsequent operative procedures. All of this tissue is removed by the x-ray treatment.

I have been using this treatment for more than a year and while my own experience with it is not so large as that of some others,

it consists of a sufficient number of cases to demonstrate its efficiency and success in curing some of the worst types of these diseases in both children and adults.

My technic in the average case is as follows: With seven or eight-inch spark gap I give 14 milliamperes minutes at ten-inch skin target distance. I use two millimeters of aluminum and a thickness of pasteboard underneath as filter. The rays are directed so as to pass underneath and internal to the lower maxilla, first from the front, then from behind. Treatments are not given over the same skin areas oftener than every two or three weeks. Eight or ten treatments to each tonsil is usually sufficient, even in the worst cases. While the tonsils are being treated in this way the adenoids, if present, are treated first through the nose and face and then from behind forward, the head being ducked, the rays pass through the neck going first slightly to one side of the cervical vertebra, then the other. I prefer not to begin the treatment when the tonsils are acutely inflamed. I have never known a case of inflammation to develop in the tonsils after the second treatment was given.

This treatment has passed the experimental stage and should, I think, be substituted for surgery in all these cases whenever it is possible to do so.

DISCUSSION

Dr. F. A. Gray (Batesville): I have had a limited experience in treating these cases, but my experience coincides with Dr. Southard's. Instead of using cardboard I use sole leather and the aluminum. My patients only complain that they have a slight dryness, after they take the treatment, on swallowing. But they say, "I am delighted with the treatment."

Dr. A. U. Williams (Hot Springs): It seems to me that the treatment might be extended almost indefinitely to other affections of the throat. I can see where it would be of benefit to chronic troubles in the throat of the pharynx or the larynx. It even might go down into the treatment of chronic bronchitis in the lungs with good effect. I am going to practice it on carbuncles the first opportunity I have (laughter). And I hope to have the pleasure of reporting the results to this society at some future time. I like the idea very much, doctor.

Dr. C. N. Pate (Hot Springs): I was just thinking, while the doctor was reading his paper, if it was possible for me to trade some of my equipment for an x-ray. I don't believe though, that in every case of tonsillar infection the x-ray should be relied on for treatment, for this reason: I believe that most of the diseased or infected tonsils should come out with the same degree of completeness and thoroughness which the general surgeon would require in removing a diseased appendix.

Before this Doctor Southard gave two splendid papers to this society in regard to his method

of treatment for tuberculosis of bones, joints and lungs, but I don't believe that we will see the pendulum swing so far from the surgical treatment for diseased tonsils.

I will admit that we have been taking out too many tonsils, but there is a need for removing tonsils when they are diseased, on the same principle that we remove a diseased appendix.

I have seen within the past ninety days a case from McKinney, Texas, that was treated by the x-ray. The patient was so bitterly opposed to having his tonsils removed that he selected the x-ray method. Whether the technic he had applied to his tonsils was correct as outlined by Doctor Southard and others, I don't know; but I know that the tissue of the tonsils was shrunken away to a certain degree, but he still has his infection in the crypts or pus sacs in his tonsils. I would like to ask Doctor Southard what he hopes to do with the crypts of the tonsils that refill from week to week with food stuff carried through the mouth and throat, that creates a certain amount of this infection. I see almost every day tonsils that have hard masses of food and other infection that have a very foul odor. Now we may extract that out and treat them, but how are you going to heal up these holes with the x-ray treatment, for they rarely heal from cautery and nitrate of silver treatment?

Dr. A. U. Williams, who just spoke, has had some experience in this line. I have opened up those crypts and pressed out the pus, a cheesy mass, a number of times, in his throat. They get better when it is squeezed out and treated under routine treatment, but in a few weeks or months it refills and we have to remove it again unless we slit them or dissect them out. Of course, there isn't much tonsil there at his age. It has been absorbed or gone. But the crypts are there and refill, and we go in there with our applicator or cautery and silver, and they are treated again.

In other cases, I wonder what we should do with children who come to us from far-away towns. They have no x-ray there. They come with a need that is serious. They can not breathe. They can not sleep with any degree of comfort, and they show infection. Shall we tell them to use the x-ray and they have no x-ray at home? They can not stay and come back every few days and get treatment.

Therefore, I feel that I can not approve and appreciate the true value of this method of treatment recommended by Doctor Southard, until I have had a chance to observe the results by personal observation in comparison with the operative cases. Until then I could not say that all cases, or even the majority should be treated with the x-ray. Far be it from me to enthusiastically exalt the new, or the last to forsake the old.

Dr. Thos. Douglas (Ozark): I didn't clearly understand from Dr. Southard how long it takes to do this work; how long the treatment requires. I don't know anything about the x-ray treatment of these cases. I know Dr. Southard is not the ordinary enthusiast. I believe in him and deem his paper an excellent contribution to our session.

Dr. R. H. T. Mann (Texarkana): Last night we heard that the x-ray would always cure carcinoma of the cervix, if we got it early enough. Today we heard that the x-ray is the thing for tonsils in every case.

Gentlemen, a few years ago we heard that excision of the entire thyroid gland was the thing to cure these patients. We knew nothing about

the secretions of the thyroid gland at that time, or their importance in the human body. To our sorrow all over this country we learned a lesson, a sad lesson, from these patients who had their thyroid removed while this thing was in its experimental stage. Now, gentlemen, the secretory glands of the body forms one of the most profound studies of the human anatomy.

I believe in time that the use of the x-ray in these cases will be the thing. I have great faith in it. I think it is in its beginning. But, I ask you, with one year's experience in the use of the x-ray for diseased tonsils and adenoids, can we come to the conclusion that this is the one way and the best way to treat these cases? I say it is all right to try it on a limited number of patients who are willing to undergo it and see what the final results will be, but what do we know about the results in five years or ten years, or after the reaction has set in? That's what counts. We can not tell in one year. We may not be able to arrive at a just conclusion in the matter in five years. We hope it will do the work. I think it will in time, but we don't know yet. We shall know, I am sure, ultimately.

Dr. E. E. Barlow (Dermott): I would like to ask Dr. Southard to explain the results of the glandular involvement of the diseased tonsils, if he has treated tonsils after a glandular involvement, such as adenitis.

Dr. Billings and Dr. Rosenow, I believe, have done more to teach us the association between focal infection and systemic disease than perhaps any others in this country, and I believe they both give tonsils the first place as to focal infection, producing systemic disease.

Dr. J. D. Southard (in response): Dr. Pate asked about the food entering into the crypts. After the tonsil is cured by this treatment, the crypts are so reduced in size, practically healed inside, that the infection is gone and there seems to be no further trouble from that source.

Dr. Mann speaks of the small experience. I am very glad Dr. Mann discussed the paper because he is one of our leading specialists in the eye, ear, nose and throat, and he is a man, I know, of vast experience. I think he misunderstood me, perhaps. He stated that an experience of one year was not sufficient. I agree entirely with him in that respect. But, if he will remember, I stated that this was based on the treatment and care of thousands of cases. It is the experience of such men as I quoted. Dr. Witherbee is at the head of the x-ray department in the Rockefeller Institute, and we all know what that means. We know that reports from such men who have had such large experience are entitled to credit accordingly.

Dr. Mann: What I meant was that these cases haven't been treated over a length of time, extending over a year or more, and the final results may not be determined within that time.

Dr. Southard: I said my own experience extended back a year. Of course, the men who have had the most experience with it have used it much longer. Furthermore, as I stated, the tissue is practically the same as that in the tuberculous glands, and we know, or some of us know and have known for ten years, that it does destroy the disease in these tuberculous glands.

As I said in the paper, when you compare the results of this treatment, and what it means to cure diseased tonsils and adenoids by such a treatment as this, in comparison to the treatment by surgery, I think it will commend itself to every man who is in a position to try it. I hope

that you will give it a trial. I hope that every man that has an equipment for it will take it up and prove it. It certainly can be proven.

I will ask Dr. Barlow to repeat his question.

Dr. Barlow: I asked you if you had had any experience in treating those cases where the glands had become involved as the result of tonsillitis or infected tonsils? We see cases where they have adenitis repeatedly, where there is hypertrophy, large angry tonsils where they almost meet. I said that Billings and Rosenow had taught us that the tonsil takes first place in focal infection, focal infection with systemic disease. What becomes of the glands? I have had those tonsils removed where the glands were enlarged, and they go down.

Dr. Southard: They do also in x-ray treatment. Such glands are the seat of more or less lymphoid tissue, and in my experience, as the tonsils get better these glands recede.

The dose that I give is, with a Coolidge tube, an ordinary interrupterless machine, with a spark gap of seven or eight inches and the distance of ten inches from the target to the skin, and I give about 14 milliamperes minutes, with a filter of three millimeters of aluminum and one of pasteboard or leather. The pasteboard being slipped underneath the aluminum.

PSYCHOLOGIC EFFECTS OF TOBACCO SMOKING.

Few subjects have aroused such unsatisfactory discussion as has been given to the effects of tobacco smoking. Whereas the "antis" of various sorts place the responsibility for everything from stunted growth to mental deficiency on this habit, its users praise the "delicious weed" as the most soothing of habits, and even assign it a place in medicine as a harmless sedative. Recently the department of psychology of Johns Hopkins University undertook a study of the immediate psychologic effects of tobacco smoking. Eight established psychologic tests were used to determine whether or not the smoking of cigars or cigarettes would influence the judgment and response of a number of persons to various stimuli. The results seem to indicate strongly that the immediate effect of smoking, both on smokers and on nonsmokers, is a lowering of the accuracy of finely co-ordinated reactions. There is no indication that the speed of complicated reaction is affected by smoking, nor is there indication that thoroughly mechanized reactions requiring no fine motor adjustments are affected. It is proposed to continue to experiment extensively with more refined methods and technic. Investigations by these observers and, in fact, all experiments thus far reported on this question indicate that we have no really scientific evidence on which to base a valuable opinion as to the psychologic effects of the tobacco habit.—*Jour. A. M. A.*, Dec. 9, 1922.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.



DR. H. H. KIRBY.

The sudden death of Dr. Henry Hodgen Kirby of Little Rock was a terrible shock to his family, friends and fellow physicians and a distinct loss to the profession of which he was a most worthy member.

Cut off in the prime of his life and usefulness, at the age of 39, collapsing when enjoying a hunting outing with his brother, his small son and friends, a career which promised brilliancy was tragically ended. Dr. Kirby was a useful citizen, a consecrated Christian and a true friend.

He was born at Harrison, October 28, 1883, a son of Dr. and Mrs. L. Kirby, who survive him. He was a graduate of the University of Arkansas and obtained his degree in medicine from Washington University, St. Louis, in 1906. He was married to Miss Gladys Manning of Clarendon, in 1911. Besides his parents he is survived by his widow, four children, four brothers and one sister. He was an active member of the Pulaski County Medical Society and of the State society, also a member of the Southern and American Medical Associations.

The Journal extends heartfelt sympathies to the bereaved relatives.

THE FESTIVE SEASON.

Down the centuries the festival of Christmas has been observed with rejoicing, feasting and gift-giving ever since the adoption of that day as the anniversary of the birth of Christ. And before the Christian era the ancient sun worshipers also observed the day, in much the same manner, in celebration of the new birth of the sun. In America it is a universal festival in which all sects, nationalities and races join. The Jew and the Gentile, the agnostic—in short, all mankind—make common festival without regard to the religious aspect of the occasion.

It is a good thing for all sorts and conditions of people thus to make merry and rejoice on this one day when work is relegated and harmony, peace and good-will prevail universally. We most sincerely wish every reader of the Journal (and all non-readers of this publication) a merry and happy Christmas and a prosperous New Year.

MERITED PRAISE FOR AN ARKANSAS INSTITUTION

In view of the attitude of certain newspapers and magazines toward Arkansas as one of the backward States, it is refreshing and gratifying to find words of praise from high authority concerning the wise and modern treatment of the insane in our State Hospital for the Cure of Nervous Diseases, under the administration of Dr. C. C. Kirk.

The American Review of Reviews, last April, published an article entitled, "The Winning Fight Against Mental Disease," by Hon. Burdette G. Lewis, Commissioner of Institutions and Agencies of New Jersey. The article attracted wide-spread attention and had much to tell of the work of Dr. Henry A. Cotton, in charge of the State Hospital for the Insane at Trenton, N. J., and the favorable results obtained by his methods. In the December number of the Review of Reviews there is a lengthy article following up this article of last April and consisting largely of a symposium of the experiences of expert physicians and alienists in charge of institutions in various States.

AND MORE SPACE IS ACCORDED THE LETTER OF DR. C. C. KIRK THAN THAT OF ANY OTHER CONTRIBUTOR.

This is a signal honor to an Arkansas institution and an Arkansas physician, coming

from such a source. The editor of the Review of Reviews, Albert Shaw, in a letter to Dr. Kirk, says that he has given such liberal space to his communication because it deserves attention "for its bearing upon progress and reform in our State institutions." He adds, "I think your letter ought to be reprinted in the leading papers of Little Rock and the other cities of Arkansas. YOUR WORK AS REPORTED HERE WILL ADD TO THE PRESTIGE OF ARKANSAS ALL OVER THE UNITED STATES. It ought to stimulate your Legislature to still more generous support of your up-to-date methods."

Dr. Kirk's communication is, of course, too lengthy to be given in full, occupying, as it does, more than a full page of the Review of Reviews, but he recounts in detail his methods, especially stressing the relegation of all mechanical restraints, including steel handcuffs, leather belts, anklets and mufflers and telling of the percentage of cures, which is very satisfactory.

One concluding paragraph, however, is especially noteworthy. Dr. Kirk says: "The most pressing need Arkansas has today is that of a new institution where the feeble-minded and epileptic can be cared for, thus giving this institution greater freedom in its efforts to promote a cure in the acute and recoverable cases."

It will be noted that Editor Shaw closes his letter to Dr. Kirk by suggesting that the latter's letter should stimulate the Legislature of Arkansas to still more generous support of his methods. Among the letters from physicians and alienists in other States, published in the same article are complaints of the negligence of Legislatures in withholding the proper and needed support for State institutions and this feature should be impressed upon the members of the next Arkansas Legislature.

No obligation is more sacred than that of caring for the State's unfortunate insane and feeble-minded. In all truth it must be admitted that former Legislatures have not been liberal in the matter of appropriations, either for the State Hospital or for the State Board of Health. Instead of the public health being esteemed the most important matter for wise legislation it is esteemed of far less importance than good roads and various bureaus and commissions whose affairs are conducted by politicians and place hunters, rather than by professional men whose lives are devoted to

the welfare of their fellow men and the State. Good roads are important, so is agriculture, so is the welfare of pigs and cattle, of schools and many other factors in progress; but, first of all, should be considered the public health and all things pertaining to it.

ALL RECORDS BROKEN.

In the November issue of the Journal we gave a complete register of the membership of the Arkansas Medical Society. It shows a total membership of 1,143, the largest number ever on the rolls of the society. Pulaski, with the largest population of any county, naturally leads with a total of 130. Based on population, Sebastian should come second, but that honor belongs to Garland County with 81, and Sebastian third with 54. Yell County with only two members is at the bottom of the list, but Calhoun and Montgomery each has only three. Nine counties are not organized. These counties are Fulton, Izard, Marion, Newton, Pike, Poinsett, Sharp, Stone and Van Buren. This is accounted for largely by the fact that they mostly are sparsely populated counties, mountainous and with comparatively few physicians. Still, we should like to see all of the seventy-five counties represented, however small the number affiliating. Some missionary work might be done by organizing societies in all these counties; for once started, they probably would continue to increase in membership.

It is just possible that some errors or omissions may have been made in compiling the lists. If such is the case, we ask that we be notified promptly, so that the new year may be started with an absolutely correct list.

While the gain for 1922 is not large, it shows a healthy and continued growth and the fact that the total breaks all records for the society is gratifying.

And this again suggests that DUES for 1923 will fall due next month. It is to be hoped that all members will promptly renew and that 1923 will show still a further increase. Secretaries of county societies are urged to remind members to pay their dues promptly, so that next year's annual meeting will be bigger and better than ever. Committees on program and arrangements will get to work almost at once for the next annual meeting and we expect it to be a record-breaker.

In suggesting membership to such physicians as do not belong, it is well to keep in

mind the purpose of the society as set forth in the constitution, as follows:

Article 11. Purposes of the Society:

"The purpose of this society shall be to federate and bring into one compact organization the entire medical profession of the State of Arkansas and to unite with similar societies of other States to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of State medicine, so that the profession shall become more capable and honorable within itself and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life."

Editorial Clippings.

THE SIXTEENTH MILE-STONE

At Hot Springs last year when the question of the 1922 meeting place came up for discussion, a committee from Chattanooga headed by Dr. John B. Steele presented the invitation and claims of that city. Dr. Steele said he felt like a young man of whom he had once heard who was returning home in the dead of night very much the worse for the evening's entertainment. He passed a lighted dance hall and decided to participate in the merriment. The bouncer at the door, espying his unsteady gait, gently but firmly threw him down stairs. He arose and ascended sweetly again only to be more forcibly ejected. After a fourth ejection he sat miserably at the foot of the stairs and sobbed: "I know what is the matter, mister. You d-don't want me up there!"

Chattanooga, the committee stated, had four times invited the association to meet with it, and had been four times refused.

The council deemed the story amusing but inapplicable. However, it voted that it was high time that the association revisit the city where it had received its birth certificate. And no one now doubts the wisdom of that decision.

The Chattanooga meeting vindicated itself before all judges. The city proved that it had ample hotel facilities, if a little doubling in rooms were resorted to; that meeting places for the various sections were ample in size and conveniently located. And it demonstrated to the satisfaction of all that a large resort and tourist town with hustling industrial assets as well, makes an ideal convention city. Future gatherings will have to bestir themselves mightily to equal the pace set by Chattanooga. The attendance of 1781 was almost record-breaking, being exceeded only by the Atlanta convention in 1916.

It is difficult to do justice to the untiring work of the local committees. They scored a hundred per cent from every angle. Always available, always approachable, and always helpful, they earned the admiration of all. The information bureau also did yeoman service.

Visitors were warm in their praise of the cordiality of Chattanooga, the excellence and fairness of the hotels and restaurants and the unmatched grandeur of its scenic and historic motor trips.

More ladies were in attendance than ever before, which was fortunate, as there were many entertainments provided for them by the hospitable citizens of Chattanooga.

The programs of the eighteen sections were of a high order of scientific excellence. The papers will appear in the Journal during the coming year.

This account would not be complete without a word about the scientific exhibits, which were the best ever presented at an association meeting. The awards were: For the best exhibit by a physician, to Dr. Vilray P. Blair, St. Louis, Mo.; for the best exhibit by a medical school, to Vanderbilt School of Medicine, Department of Pathology; and for the best exhibit by a public health agency, to the Alabama State Board of Health, with honorable mention to the South Carolina State Board of Health.

Commercial exhibits likewise came in for their share of praise. They were well represented and attractively gotten up.

The three outstanding official acts of the meeting were (1) the endorsement of the report of the special committee declaring Crawford W. Long, of Georgia, the discoverer and first employer of sulphuric ether as a general anesthetic, and requesting the publication in

book form of the data from which these conclusions were reached.

(2) The association, with no ill-will toward its "Big Sister," the American Medical Association, went on record unanimously as opposing the recommendation of the American Medical Association's retiring president, Dr. Hubert Work, now being investigated by a special committee, that the United States be subdivided into small groups of States for sectional subordinate medical societies.

(3) There was the establishment of two new sections, namely, Section on Dermatology and Syphilology and Section of Medical Directors of Southern Life Insurance Companies.

(4) The meeting recommended the work of the Louisiana State Medical Society in initiating a movement for the erection of a home for indigent physicians.

The association has held many conventions, but it does not hope to meet with kinder, more cordial, or more efficient entertainment than that furnished by Chattanooga, which well merits its nickname, "The Dynamo of Dixie." —*Southern Medical Journal*.

HYGEIA: A JOURNAL OF INDIVIDUAL AND COMMUNITY HEALTH.

For years the medical profession has felt the need for a periodical through which the public might be enlightened in matters of medical science. At the session of the House of Delegates in St. Louis, the sentiment crystallized and the board of trustees was authorized to proceed with this publication. As shown by the minutes of the last session of the board (page 1936), plans have now matured sufficiently to permit definite announcement. The April, 1923, issue—ready in March—of Hygeia: A Journal of Individual and Community Health, the first number of a scientific medical magazine for the public, will mark what, it is hoped, will prove to be another great step in the service which the American Medical Association is rendering to the medical profession and to the people of our country.

Aside from the utilitarian aspects of the title Hygeia—its brevity, ease of pronunciation, simplicity and attractiveness—it is symbolic of the very foundation of medical science and preventive medicine. The name signifies the purpose of the periodical: to interpret

medical science to the public; to inform the layman concerning the fundamental facts of physiology and pathology; to keep him in touch with the advance that scientific medicine is making in the prevention and alleviation of disease. By its physical form, its attractiveness, its interest and its practical value, *Hygeia* should appeal to the lay reader as a publication worthy of his attention.

It is hardly necessary to tell physicians that there are many special problems confronting the editorial staff of the new publication. Every physician has been faced with the difficulty of placing a medical subject suitably before a lay audience. The speaker or writer has to put himself in the place of those whom he would enlighten; he must speak in the language of the masses; he must interpret technical terms in words of every-day usage. For the understanding of facts in relation to disease, for comprehension of immunologic reactions, for explanations of the way in which bacteria gain entrance into the body and produce infection, for knowledge of how various drugs produce effects within the body, certain fundamental knowledge is necessary. Unfortunately, the vast majority of our public do not have it; they have no knowledge of the essentials of either the anatomy or the physiology of their own bodies. The problem, as has been said, is a difficult one; but it is hoped that, by leading from the elementary to the advanced, and by the use of chart, diagram, table and picture, *Hygeia* may be of service to every reader.

Everywhere, the board of trustees, the Council on Health and Public Instruction and the editorial staff have met a most enthusiastic response and are receiving offers of wholehearted co-operation. Among the contributors whose articles will appear in early issues are scientists of note who can write in the language of the intelligent layman; moreover, many lay writers whose names are household words among the American reading public have agreed to give their assistance. It now remains for the medical profession to do its share in placing this journal in the hands of the public. On their co-operation will depend largely the success of the enterprise.—*Journal A. M. A.*, December 2, 1922.

THE TUBERCLE BACILLUS.

The science of bacteriology is still too young to afford any very detailed pictures of the

life history of the micro-organisms with which it deals. It is not long ago that they were usually depicted in the guise of the most baneful enemies to mankind. Thus there are accounts of "the swarms of germs present almost constantly in our noses, throats, stomachs, bowels, etc.," awaiting the chance they have been looking for—to break through the cell barrier and run riot in the body. The beneficent work of bacteria has received recognition more tardily. To the species which help rather than hinder the tasks of mankind and the higher animals, Long⁴ has paid this well deserved tribute:

Some of these are very adaptable, wonderfully equipped foragers, not overly particular, within reasonable limits, about the temperature at which they work or the form in which the great classes of foodstuffs are supplied to them. They grow in relatively large masses, many dying that others may live, and in their process of dissolution many kinds of them liberate powerful ferments which make more food available for the rest. In view of their relation to organic decay they have received the name of "saprophytes." Etymologically they are decay-growers. They live their day, grow, die and decay themselves, and by virtue of their involuntary sacrifice serve the high purpose of maintaining those great cycles of the elements in which a certain amount of carbon, nitrogen and sulphur is continually available in a mobile state suitable for the nutrition of other forms.

There are bacteria of other types which serve no such useful purpose. Some of them are extremely helpless in "the region of bounteous plenty outside." They crave a condition of parasitism in which almost inevitably they come into conflict with the body cells of the host. The modern story of immunology tells of the devices by which many marauding micro-organisms are converted from dangerous enemies into harmless guests.

For obvious reasons, the bacillus of tuberculosis has been the subject of more intensive study than have most of the other harmful bacteria. Its metabolism, the product which it elaborates, the reactions which it excites, and the modifications which it may undergo in different environments are some

(4) Long, E. R.: *The Biochemistry of Tuberculosis*, Bull. Johns Hopkins Hosp. 33:246 (July), 1922.

of the topics which have received investigation in recent years. We recall few more trenchant descriptions in the study of disease than that which Long has given of the first link in the progression of tuberculosis, the tubercle bacillus: "a wax-armored micro-organism, maintaining itself in necrotic tissue, picking and choosing its nutriment from the heterogeneous mass set before it, utilizing the glycerol of hydrolyzed fats, and probably building its wax therefrom, taking ammonia from certain of the amino-acids produced in the digestion of dead protein, utilizing others directing to speed up the process of synthesis of its own protein, antolyzing to a slight extent, sufficiently to sensitize the surrounding host to its diffusible protein products, being carried by the lymph, by phagocytes and otherwise, to new soil, there to be met by a nonspecific foreign body response, which in the end operates to produce anemia and death of the isolated cells." Then we have the failure of that dead tissue to autolyze, Long adds, perhaps because of the presence of ferment-inhibiting substances within the bacillus—the phenomenon of caseation. Finally, he concludes, there is more or less absorption of foreign protein from that focus, that of the bacillus itself and that of the disintegrating tissue, both toxic to the body protoplasm, both capable of causing fever and stimulating the metabolism of the host, so that in severe cases the typical picture of consumption ensues. Such a masterful summary would have been impossible only a few years ago, because of the meagerness of our knowledge. Today it points the way to the further investigation of prophylaxis and therapy.—*Journal A. M. A.*, December 2, 1922.

Personal and News Items.

Dr. F. A. Norwood has moved from Lockesburg to Smackover.

Dr. and Mrs. T. J. Woods of Evening Shade visited in Little Rock this month.

Dr. J. S. Thompson of Gravette and Dr. G. W. Reagan of Berryville visited in Little Rock this month.

Dr. H. Fay H. Jones, of Little Rock, made a business visit to Hot Springs National Park recently.

Dr. L. D. Reagan of Little Rock attended the recent meeting of the Surgical Associa-

tion of the Rock Island lines at Oklahoma City, December 5 to 7.

Dr. Paul Mahoney, of Little Rock, has returned from a course in ophthalmology and otology at New Orleans, and announces that hereafter his practice will be limited to diseases of the eye, ear, nose and throat.

At a meeting of the Pulaski County Medical Society held December 11, the following officers were elected for the ensuing year: D. A. Rhinehart, president; H. A. Higgins, vice-president; R. J. Calcote, secretary; W. R. Bathurst, treasurer.

At the seventeenth annual convention of the Medical Association of the Southwest, held in Hot Springs, October 16-18, the following officers were elected for the ensuing year: President, Dr. Frederiek H. Clark, Dawson Springs, Ky.; Vice-Presidents, Drs. Clinton K. Smith, Kansas City, Mo., Williston H. Addington, Altoona, Kan.; R. E. House, Ferris Texas, and J. H. Buckley, Hot Springs, Ark.; Secretary-Treasurer, Dr. Edward H. Skinner, Kansas City, Mo. The next annual meeting will be held at Kansas City, Mo., in October, 1923.

The United States Veterans Bureau offers a special course in the Neuro-Psychiatry to a certain number of qualified physicians on condition that upon completion of such course they will continue in the service of the bureau for a period of at least two years thereafter. On satisfactory completion of the course, members will be recommended for the grade of Passed Assistant Surgeon on the Reserve Corps of the U. S. Public Health Service, or they will become eligible for employment as Class "B" physicians under the U. S. Civil Service Commission and assignment to duty with the U. S. Veterans' Bureau. These salaries range from \$3,000 per year, upward. The course will start on January 4, 1923.

At the meeting of the State Board of Health, held in Little Rock December 12, 1922, Dr. Leonidas Kirby of Harrison was elected president for the ensuing year.

The board adopted by resolution the standard sanitary railway code recommended at the last meeting of the North American Convention of State and Territorial Health Officers. The code regulates such matters as the

cleaning of passenger coaches and passenger depots, quality of drinking water on trains, etc., and has been adopted by a large number of other States.

Those attending the meeting were: Dr. L. Kirby, Dr. F. O. Mahoney, Dr. O. L. Williamson of Marianna, Dr. S. A. Southall of Lonoke, Dr. H. R. Webster of Texarkana, and Dr. C. W. Garrison, State Health Officer, Little Rock.

ABRAM'S "OSCILLOCLAST."

This is a piece of electrical apparatus which is said to produce vibrations of varying rate. Its use is based on Abram's theory that "specific drugs possess a like vibratory rate as the diseases for which they are effective." Instead of using a drug, one starts the "Oscilloclast" going, moves the indicators to the number corresponding to the vibration rate of the indicated drug and applies the instrument to the sufferer who, it is alleged, then gets the therapeutic action of the drug in question. The "Oscilloclast" is not for sale. It may be leased (for about two hundred dollars) on signing a contract that the instrument will not be opened. Within the past few months Abrams has been making bids for osteopathic patronage. The followers of the cult have not been slow to respond. The lure of the dollar and the bizzaro is irresistible. Many of the lessees of the "Oscilloclast" are individuals who for years have lived in what may be called the twilight zone of professionalism, where it is difficult to distinguish between the visionary with a fad and the quack or near quack with a scheme.—(*Journal A. M. A.*, November 4, 1922, page 1626).

STAMP OUT TUBERCULOSIS WITH CHRISTMAS SEALS

The misery and want and woe engendered by that terrible scourge of mankind, TUBERCULOSIS, is greater in its toll of life and its aftermath of sorrow than the world's wars.

The educational campaign carried on by the National, State and Local Tuberculosis Associations for the early diagnosis, segregation and proper treatment of those suffering with this dread disease, has cut the death rate in the United States in half during the past fifteen years and enlightened the people to the necessity of carrying forward the work of completely stamping out this communicable disease.

That the total death rate from tuberculosis in this country was lowered by 100,000 last year, demonstrates the value of what the tuberculosis association is doing.

Arkansas' toll of lives last year was 3,000.

Through the annual sale of Christmas Seals funds are raised to carry on this work.



BUY SEALS—URGE YOUR FRIENDS TO BUY THEM—EVERYBODY CAN HELP.

IMPORTANT ANNOUNCEMENT.

The medical profession everywhere will be interested in the announcement that the Abbott Laboratories of Chicago have purchased the Dermatological Research Laboratories of Philadelphia. This is an advance step for the Abbott Laboratories and will give them deserved recognition among the leading manufacturers of medicinal products.

It will be remembered the Dermatological Research Laboratories were the first in the United States to produce arsphenamine during the war when there was such a scarcity of this article; and these laboratories became well known to the medical profession for their patriotic attitude in developing and manufacturing medicinal preparations in this country. By this purchase of the "DRI" products, the Abbott Laboratories inherited their prestige.

The Abbott Laboratories acquired control of the Dermatological Research Laboratories on November 1st; and are continuing to operate them in Philadelphia under the direction of Dr. Geo. W. Raiziss, head of the department of chemistry, and his corps of specially trained assistants. Orders for "DRI" products will be promptly filled from the Philadelphia Laboratories or from their branches or distributors. For further particulars regarding their purchase of the Dermatological Research Laboratories, the readers of this Journal are referred to the statement of the Abbott Laboratories on another page of this issue, entitled, "Important Announcement to the Medical Profession."

THE NEW HOME OF HYNSON, WESTCOTT & DUNNING OF BALTIMORE.

This national drug firm has just erected and occupied its own building at Charles and Chase Streets, Baltimore. The building is artistic in appearance and adapted to accom-



modate the several departments of their rapidly developing business, which began in a small way in 1889, but has grown to a million a year, with an organization of 125 people. Their unique sales department alone comprises nineteen men who visit physicians in all parts of the United States, but do not sell goods. Thirty-five of their products have been accepted by the council, and are advertised in this Journal. None of their preparations are offered direct to the public, but are introduced to the medical profession for the use of physicians and their patients. M. H. P. Hynson (one of the founders), died in 1921; but their growing business has now been established in new quarters under the immediate supervision of Messrs. James W. Westcott and H. A. B. Dunning (the latter being the active administrator), with a highly trained force, equipped to meet promptly the demands of the medical profession anywhere and at all times.

POST GRADUATE SCHOOLS FOR VETERANS' BUREAU PHYSICIANS.

In order to render the best possible professional care and treatment to disabled ex-service men, Colonel C. R. Forbes, Director of the Veterans' Bureau, announces that he is about to establish post graduate schools for physicians now connected with the bureau and those who wish to join this service.

There will be two schools for the teaching of the diagnosis, care and treatment of pulmonary tuberculosis, one at Fitzsimmons General Hospital, Denver, Colorado, and the other

at U. S. Veterans' Hospital No. 41, New Haven, Conn. The courses at these hospitals will be uniform and will run simultaneously. Each course will last two months, and will include collateral branches of medicine such as pathology, x-ray plate interpretation, physiotherapy, etc.

Before attending the schools physicians now in the service will be given a preliminary course which will be established under competent instructors in each of the Veterans' Hospitals for tuberculosis. They will then be selected to take the post graduate course at Fitzsimmons or New Haven. Specialists not connected with the bureau will be invited to attend and give lectures to the students. It is anticipated that at least three courses of two months' duration each can be run during the year in the east and west.

As more physicians with special knowledge of tuberculosis than are already in the service will soon be needed, it is hoped that this demand will be supplied from the profession at large. Applications for admission to the schools with a view to service in bureau hospitals may be sent to Colonel C. R. Forbes, Directors Veterans' Bureau, Washington, D. C. Attention Clinical Director of Tuberculosis.

Obituary.

DR. H. H. KIRBY—Henry Hodgen Kirby, M. D., of Little Rock, aged 39, died suddenly near Lonoke, December 9, while on a hunting trip with friends. He leaves a wife and four children, and is survived by his parents, four brothers and a sister. He was well and favorably known in Arkansas and elsewhere as a citizen and surgeon. "We shall not soon see his like again."

DR. J. W. MELTON—John W. Melton, M. D., aged 45, Secretary Saline County Medical Society, was run down by Missouri Pacific train No. 17, near Bauxite, 11:00 a. m., November 30, and instantly killed. He is survived by his wife and several children. Dr. Melton was a most thorough-going, conscientious and industrious medical man and was held in high esteem by the profession throughout the State. In his passing we have sustained an irreparable loss.

Communications.

To the Editor:

I am endeavoring to make a complete study of the distribution of human actinomyces in this country. The number of cases reported in the literature is surprisingly small, and I know that the disease is not so rare as is sometimes thought. I shall greatly appreciate hearing directly from any one who has had experience with this disease, and desire to know concerning case histories the following: Age, sex, occupation, residence, State in which the disease was contracted, location of lesion, duration of symptoms, and any special points of interest connected with the treatment, outcome of the disease, or necropsy findings.

A. H. SANFORD, M. D.

Mayo Clinic, Rochester, Minnesota.

Editor, Journal of the Arkansas Medical Society:

As I am winding up here and as by so doing will leave the people here without a doctor, I am writing you in the hopes that you might know some good young man who would care to take a country practice.

Practice amounts to better than \$5,000 per year, collections about 90 per cent. The nearest doctor is five miles. Roads fair, drive a Ford car all the year.

I have nothing to sell him, just want the location filled. An old man would not do.

Doctor, if you know any good young man who would be interested, please tell him to write me.

I will introduce him and aid him in any way possible.

Respectfully,

JAS. P. LUNT, M. D.,

Leonard, Ark.

County Societies.

POLK COUNTY

(Reported by F. C. Mullins, Sec.)

The Polk County Medical Society met in Mena, November 3, 1922. Called to order by President Fletcher.

Present: Connally, Fletcher, Hawkins, Hilton, Johnson, Mullins and Watkins.

Dr. W. P. Parks, formerly superintendent of the Hot Springs reservation, was present as a visitor. No paper being scheduled for this meeting, Dr. Parks was called upon and

gave an interesting description of the government clinic installed while he was superintendent.

Dr. Mullins, who recently took a patient to the Mayo Clinic at Rochester, Minn., made a short talk descriptive of the clinic and hospitals there.

Dr. T. B. Young of Cove, Ark., was elected to membership in the society.

Dr. J. G. Hilton was selected to present a paper on "Blood Pressure" at the next monthly meeting.

Meeting adjourned.

GREENE COUNTY

(Reported by F. M. Scott, Sec.)

The Greene County Medical Society met in regular monthly meeting in the office of Dr. F. M. Scott, Paragould, December 7, 1922, at 7:00 p. m. Dr. B. E. Ellis, president, presiding.

Present: B. E. Ellis, E. S. Baker, O. Wilson, R. J. Haley, G. T. Hopkins, J. G. McKenzie, J. H. Gaunt.

Election of officers for 1923 as follows: E. S. Baker, president; D. L. Boyd, first vice-president; J. G. McKenzie, second vice-president; F. M. Scott, secretary and treasurer; O. Wilson, P. L. Dickson, B. E. Ellis, board of censors.

Program for the next meeting, January 4, 1923, will be: Quiz on Adrenals and Thyroids by Drs. O. Wilson and R. J. Haley.

Book Reviews.

Ringworm and Its Successful Treatment—By John P. Turner, M. D., Medical Inspector of Public Schools, Philadelphia. Illustrated. Published by F. A. Davis Company, Philadelphia. Price, \$1.00.

The little book has developed following the remarkable achievement in connection of the author's work as school medical inspector. He describes the history, pathology, diagnosis and gives a treatment that has brought about complete cure. It is simple, easy of application and inexpensive.

General Medicine.—Edited by Drs. Geo. H. Weaver, Lawrason Brown, Robert B. Preble, Bertram W. Sippy and Ralph C. Brown. Under the General Editorial Charge of Dr. Charles L. Mix. Series 1922. Published by The Year Book Publishers, Chicago. Price, \$3.00.

In this volume the following departments are represented: "Infectious Diseases," "Endocrinology," "Diseases of the Chest" (ex-

cepting the heart), "Diseases of the Blood, Blood-Making Organs, Blood Vessels, Heart and Kidney," "Diseases of the Digestive System and Metabolism."

Opiate Addiction.—By Edward Huntington Williams. Published by The MacMillan Company, New York, 1922. Price, \$1.75.

This work sheds new light on much that has been vague in the treatment of addicts and constitutes a working basis for the more sensible handling of this class of cases.

One of the author's suggestions is to place the whole narcotic problem in the hands of the United States Public Health Service. This would bring it under control of intelligent physicians who have legal authority to enforce measures that seem necessary.

The Propaganda for Reform in Proprietary Medicines, Vol. 2, 1922—Containing Reports of the Council on Pharmacy and Chemistry and contributions from the A. M. A. Chemical Laboratory and from The Journal of the American Medical Association. Cloth. Price, \$2.00. Pages, 603 with illustrations. Chicago: American Medical Association, 1922.

The present book is the second volume of the "Propaganda for Reform in Proprietary Medicines." The first volume ran through nine editions. The ninth edition contained (1) the most important reports of the Council on Pharmacy and Chemistry; (2) the reports of the A. M. A. Chemical Laboratory; and (3), those articles from the Journal of the American Medical Association which deal with the problems of proprietaryship in medicine and the furtherance of rational drug therapy. All of this material covered a period prior to 1917.

The present (second) volume contains similar material covering the period from January, 1917, to April, 1922, inclusive. Like volume 1, this volume is divided into four parts:

Reports of the Council on Pharmacy and Chemistry—This section presents the principles and rules which govern the council in the examination of medicaments, contains articles and reports bearing on the work of the council as well as the most important reports of the council from 1917 to April, 1922, inclusive.

Reports of the A. M. A. Chemical Laboratory—This, besides presenting the aims and objects of the association's chemical labora-

tory, also outlines some of the laboratory's work which is of special interest to physicians

Contributions from the Journal: Proprietary Products—This contains articles which have appeared in the Journal, A. M. A., on proprietary preparations and their methods of exploitation.

Contributions from the Journal: Miscellany—In this section are articles dealing with matters of interest to the medical profession, but not coming strictly under the classification of proprietary medicinal preparations.

A comparison of the material that has appeared in volume 1 of the Propaganda for Reform with that which appears in this volume will reveal the changing conditions in the proprietary medicine field. Many of the reports in the first volume brought out the fact that medicinal preparations were at that time foisted on the profession with false claims of composition; reports of this character are less conspicuous in the present volume. Many of the reports in volume 2 deal with unwarranted therapeutic claims, especially those advanced for animal organ preparations, serums, vaccines, preparations for intravenous medication, etc. The present volume will also be found of interest in its portrayal of the changed conditions in proprietary medicines brought about by the World War.

The index in this new volume is, in effect, a bibliography, including references not only to articles in the book, but also (a) to articles which appeared in volume 1; (b) to articles on the same general subject in the Journal of the American Medical Association, and (c) to articles appearing in the annual reports of the Council on Pharmacy and Chemistry and of the A. M. A. Chemical Laboratory, but not printed in either volume of the Propaganda for Reform in Proprietary Medicines.

This book is not only valuable for the information it contains, but it is also interesting. It shows up the technique of the artist in the sale of proprietary medicines, tells of his skillful word-pictures that are sent to the physician as "literature." It makes clear the work of the Council on Pharmacy and Chemistry, the A. M. A. Chemical Laboratory and the Journal of the American Medical Association in their several capacities as servants to the medical profession and as champions of ra-

tional medicine. The book should be in every physician's library, and more than that, should be within reach for convenient reference.

Syphilis—By Burton Peter Thom, M. D., New York. Published by Lea & Febiger, Philadelphia, 1922. Price, \$5.50.

This volume is concise, yet sufficiently effusive to give a clear presentation of syphilis. Of particular interest is the manner in which the author presents many of the late manifestations of the disease. Dr. Thom is of the opinion that syphilis is the most important of all factors in causing insanity.

Instructions For Nursing. A Systematic Scheme for the Hygienic and Dietetic Care of the Sick.—By Dr. Smith Walker Douglas, Eudora, Arkansas.

This is a file of typewritten loose-leaf form of instructions to patients for their information regarding the hygienic and dietetic care. It is new and unique, and is one of the most practical methods that we have ever seen. They are arranged as a personal message to the patient, over your own signature, and supplied in any number at a very reasonable price.

RESPECT THE FLAG.

When you see the Stars and Stripes displayed, son, stand up and take off your hat. Somebody may titter. It is in the blood of some to deride all expression of noble sentiment. You may blaspheme in the street and stagger drunken in public places, and the bystanders will not pay much attention to you, but if you should get down on your knees and pray to Almighty God, or if you should stand bareheaded while a company of old soldiers marches by with flags to the breeze, most people will think you are showing off.

But don't you mind! When Old Glory comes along, salute, and let them think what they please! When the band plays The Star Spangled Banner in a restaurant or hotel dining room, get up, even if you rise alone; stand there, and don't be ashamed of it, either.

Don't be ashamed when your throat chokes and the tears come when you see the flag flying from the masts of our ships on the great

seas or floating from every flagstaff of the Republic. You will never have a worthier emotion. For of all the signs and symbols since the world began there is none so full of meaning as the flag of this country.

Other flags mean a glorious past; this flag means a glorious future. It is not so much the flag of our fathers as it is the flag of our children, and of countless children yet unborn. It is the flag of tomorrow, the signal of the "Good time coming." It is not the flag of your king; it is the flag of yourself and your neighbors.

Your flag stands for humanity, for an equal opportunity to all the sons of men. Of course, we have not yet arrived at that goal; injustice still dwells among us; senseless and cruel customs of the past still cling to us, but the flag leads the way to righting the wrongs of men.

Our flag is the world's symbol of liberty. That piece of red, white, and blue bunting means five thousand years of struggle upwards. It is the full-grown flower of generations fighting for liberty. It is the century plant of human hope in bloom.—*Col. Alvin M. Owsley, National Commander of the American Legion.*

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No. 8

Original Articles.

SOME IMPORTANT POINTS IN BONE SURGERY.*

Anderson Watkins, M. D., F. A. C. S.,
Little Rock.

Studies in the histological and clinical behavior of bone tissue have in recent years afforded data from which more or less exact conclusions can be drawn. Among the most important is the fact that the periosteum is not reproductive of bone, the surface of new bone being due to a layer of osteogenetic



H. A. H. White; male; age 22; injury May 12, 1919. Double fracture middle third L. femur. Lower fracture line is transverse; the upper oblique. The two separate a wedge-shaped piece of bone from posterior part of shaft. Overlap of the two fragments. The small fragment lies obliquely behind the other two. Operation same date. Bone plate and screws.

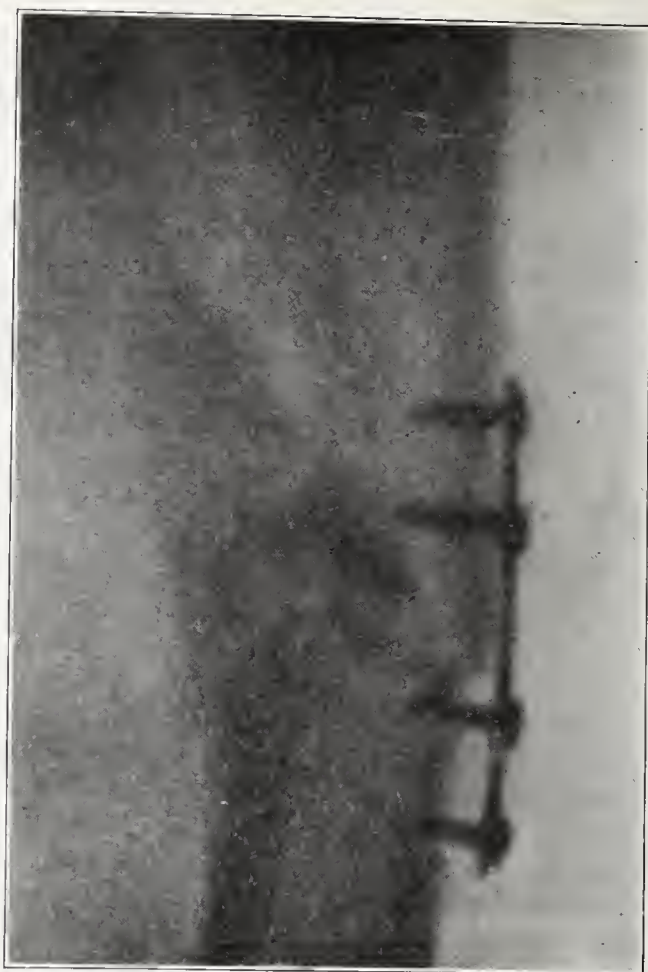
cells situated beneath the periosteum. Hence, a sub-periosteal resection of bone may or may

not result in the filling of a hiatus, depending upon whether or not a sufficient number of these cells are left attached to the periosteum. Thus it is evident that to expect a reformation of bone after a sub-periosteal rib resection in every case may lead to disappointment; as such a resection, to repeat, is dependent upon the presence of sub-periosteal osteoblasts in the hiatus.

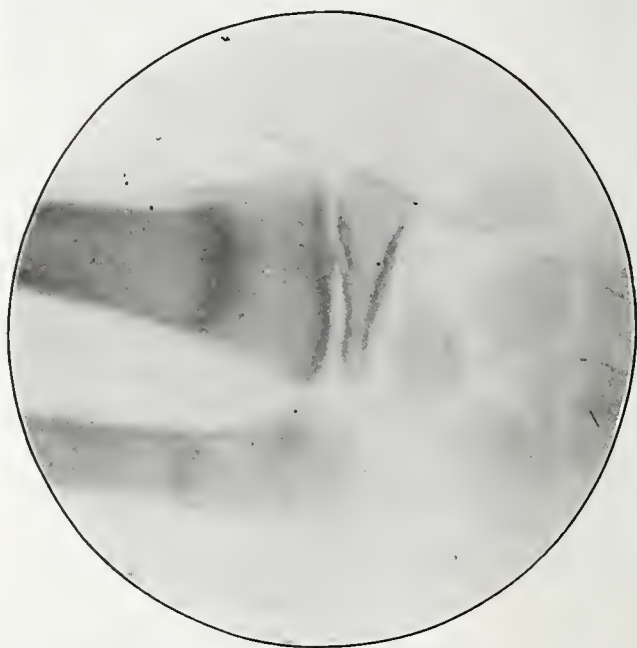
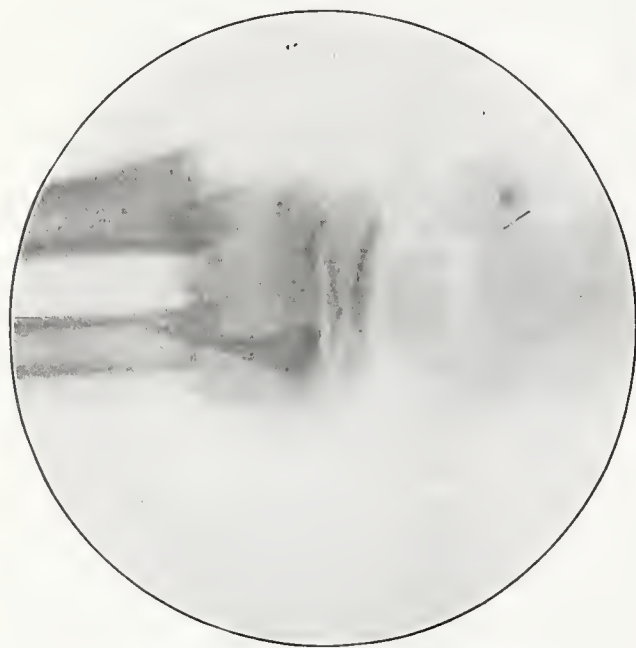
A second most important study has been that directed to the behavior of the autogenous and heterogenous bone grafts including human and animal (beef) bones. It is of interest to recapitulate the various processes found in grafts, both autogenous and boiled. In the earlier stages, following the transplantation of an autogenous graft there is observed a death of the cells in the lacunae with absorption of the graft and establishment of the circulation. As absorption proceeds so also do new vessels and fibroblasts invade the graft. These new vessels are found on the cortex, in the endosteum and at the ends of the graft. While cells in the lacunae die those which are left on the periosteal and endosteal surfaces, as well as in the open mouths of Haversian canals, proliferate and absorb the bone tissue in the graft. As absorption proceeds, new bone is laid down on the endosteal and periosteal surfaces. Up to about two months absorption exceeds new bone formation. After two months, if the graft has a physiological function to perform, in other words, is implanted in bone, bone formation exceeds absorption. Experimentally, an autogenous graft implanted in soft tissue is gradually absorbed and finally replaced by fibrous tissue. Slides made from histologic drawings illustrating the paper of Gallie and Robertson (by the British Journal of Surgery. Vol. VII, No. 26, October, 1919, pp. 211-261) well illustrate the behavior of both autogenous and animal grafts.

Boiled bone grafts behave in a manner similar to autogenous grafts, except that, of

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.



H. A. H. X-ray July 30, 1919; anterior and lateral views. Firm callous holding fragments in position. Plate removed July 31, 1919.



C. O'N. White; male; age 10 years: Injury July 2, 1919. X-ray July 6, 1919. Transverse fractures both bones; Left forearm with dorsal displacement of lower fragments. Reduction unsatisfactory. Open reduction not attempted because of furunculosis of right knee and elbow, plus estivo-autumnal malaria.

course, all cells are dead. There is, however, an absorption and the formation of new bone and finally, the complete replacement of the graft. Where there is no bone hiatus to

bridge the boiled graft is available; but for bridging a hiatus, the boiled graft is not satisfactory. This is due to a third source of new bone cells from the ends of the frag-



H. A. H. May 13, 1922, three years after operation; shortening less than half an inch. Patient walks without a limp. Functions normal. Antero-posterior and lateral views.

ments which are bridged. New bone from the end of fragments progress over the ends of the graft, finally meeting on the surface; but such an extension is limited in the case of a boiled graft, there being left a deficiency in the middle which is not supplied by the new bone. Hence, we may arrive at the conclusion that boiled bone is suitable as pegs, both extra and intra-medullary, provided there is no hiatus. The autogenous graft only is suitable to bridge a defect. Bone transplanted from one species to another, whether boiled or unboiled, has no viability and is useful only within the limitations mentioned above.

Bone transplanted from one animal to another of the same species may or may not act similarly to an autogenous graft. The factor of success or failure may be the compati-

bility or incompatibility of the bloods of the recipient and donor. From the above histological facts one may readily see that a bone graft, whatever its source, does not live *per se*, but is absorbed and replaced by live bone.

Metal pegs, nails, plates and screws are not the most ideal material in fracture work, but are often used, owing to the nature of the fracture and condition of the patient, they are most practical in some cases. The objections to the use of the nonabsorbable material in bone are principally two; bone absorption with loosening of the screws or pegs and the frequent, almost universal necessity of a second incision for removal of these foreign bodies. Bone absorption around screws and nails is due to an attempt at liquefaction and sequestration of a nonabsorbable body. While



C. O'N. August 23, 1919. Hematogenous osteomyelitis lower end radius and ulna. Operation, long incision; thorough exposure and drainage of bone marrow and soft parts.

the operation for removal is a minor procedure, nevertheless, it is a second operation. Counter-balancing these objections are favorable features connected with the use of metals; among these the ease of application and shortening of operation and anesthetic. In cases where the fragments are difficult to hold with bone grafts or pegs, or where the condition of the patient suggests a minimum of operation and anesthetic, nails or plates and screws are very useful.

Open operations on fractures complicated by local infection are practically always failures and may prove disastrous. To operate in the presence of infection elsewhere in the patient, may also result disastrously because

of a post-operative hematogenous wound infection. We shall exhibit slides from a fracture in a patient with furunculosis, illustrating hematogenous infection of the trauma-



C. O'N. September 8, 1919. Osteomyelitis involving nearly all of radius and lower third of ulna with periostitis and new bone formation of the latter bone.



C. O'N. November 19, 1921. Marked reparative bone formation. Deformity: Shortening of forearm; limited movement due to adhesion of tendons and sheaths to scar tissue.

tized area. No operation was done in this case and neither was the fracture, or rather fractures, compound; but there developed a severe staphylococcal infection of the soft parts and an osteomyelitis of one of the fractured bones, the organism being a staphylococcus undoubtedly derived from the boils with which the patient was afflicted at the time of his injury.

Granting that there are no contra-indicating infections or diseases in cases of fracture which demand operation, the most important

feature aside from good mechanics, is an absolutely rigid technique, in order to avoid infection of the bone. It is well known that bone is easily infected and owing to its density infection is stubborn; there is, of course, always the danger of an acute osteomyelitis in any infected bone case, but more particularly in young patients whose epiphyses are still in a process of development.

To introduce even the gloved fingers or any material which has been touched by the fingers of the operator or assistants is to incur



W. M. C. White; female; age 4. Injury October 9, 1919; x-ray next day shows transverse fracture lower end right humerus, less than one inch above lower end of bone. Lower fragment displaced backward and laterally. A sliver of compact bone connects the two along their dorsal sides.

the danger of infection. How often do we see men doing bone surgery putting the fingers into the wound or sponging by hand or using forceps, needles or ligatures and deep sutures which have been handled by some member of the operating crew? Such errors in technique mean that a number of cases so operated become infected and with resulting failure or even death from sepsis.

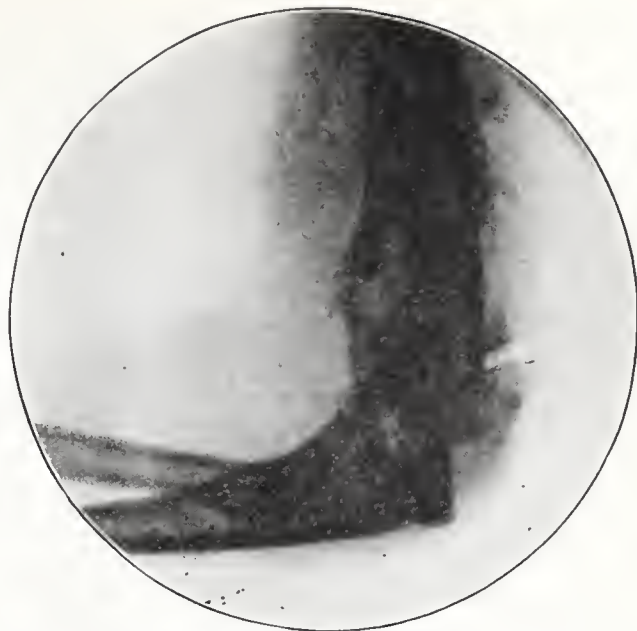
Since adhering to a rigid bone technique developed by others, and probably to some degree by myself, I have never had infection to follow a clean bone operation. I have tried to be very scrupulous in every detail and feel that my pains have been repaid. A surgeon may not always succeed in the mechanical or functional object of his operation; but he can at least avoid those results due to operative infection.

After the operative field is prepared with shaving and Tr. Iodine an ample skin incision is made after which the knife is changed so that the likelihood of wound infection from the skin is much lessened. Deeper incisions are made with a second knife. All hemostats are picked up and touched only at the handle. All ligatures are tied with hemostats, neither ties nor sutures being touched by the fingers. Catgut is held by forceps while being cut for sutures or ligatures and needles and suture each with a pair of hemostats. The wound is sponged with the sponge held in the grasp of forceps, the sponge and other dressings being always picked up by hemostats. Pegs, grafts, screws, plates, etc., are never touched

by hand, but picked up with forceps. Sutures and ligatures are made snug but not tight. (1) If too tight in the presence of infection, the latter is aided and increased by tissue necrosis. Even in the absence of infection, necrosis will ensue, interfering with healing and predisposing to hematogenous infection of the wound.

The choice of material for an internal splint will depend upon several factors: the type of fracture, the general condition of the patient and, to a considerable extent, upon the habits and preference of the surgeon. In general, an autogenous graft as inlay or intramedullary splint is preferable, theoretically, to foreign bone or to metal; but in some cases the importance is more apparent than real. In some oblique or badly angling fractures it appears as if a plate and screws are *sine qua non*; but in the majority of cases native or foreign bone is mechanically satisfactory.

(2) As mentioned above, there is not such a vast difference in the autogenous and foreign bone grafts or pegs; each really serves as a bridge for the formation and passage of new bone; but in the autogenous type we have an apparent survival of endosteal, subperiosteal and end cells; hence, union is earlier in this type than in dead bone pegs. As an internal splint, the difference is not of great importance and the time saved by having the peg ready instead of having to secure it from the patient, is not to be lightly regarded if the patient is not in good condition. For myself, I feel that prepared beef-bone pegs



W. M. C. Operation delayed until October 22, 1919, because of swelling and edema of soft tissues. Fracture reduced and held by beef bone peg. X-ray November 19, 1919. Bone peg in position, through lower fragment into medulla of humerus. Part of peg shows more plainly because it is in cartilage.



W. M. C. X-ray February 7, 1922, twenty-eight months after injury, shows normal contour of elbow joint. Note especially increase in size of lower epiphysis of the humerus and formation of center of ossification of epiphysis for the radial head and for both the medial and lateral epicondyles of the humerus. Extension, supination and pronation of forearm complete. Flexion limited not more than ten degrees. No shortening of the forearm.

have shortened the operation considerably and have been as satisfactory as autogenous graft except for bridging a hiatus.

(3) If one can avoid metallic plates, screws, bands, etc., then one should do so, as, after all, they remain as foreign bodies. In some cases, however, it seems impossible to hold fragments in any other manner. But the most *important* single point in connection with bone surgery is the *avoidance* of *infection*. Only by the technique described above can this be done in all cases. I have absolutely no trouble with wound infection when

I operate a clean bone case, for the reason that I adhere rigidly to an aseptic technique and require all assistants to do so. The choice of splints, peg, grafts, etc., is not as important as strict asepsis. Too much emphasis cannot be placed on this statement. In short, such a technique as I have described so briefly is necessary to uniform success in reparative bone surgery.

No real surgeon will operate unnecessarily. The majority of fractures in civil life are not operative cases. In cases demanding operative interference, one must be sure that there

are no contra-indications, especially local, of focal infection. In the event of operation, let the operator recall that there is no tissue more easily infected nor more obstinate in retaining infection than bone.

We have selected films from three cases illustrating the use of bone plate; hematogenous osteomyelitis of an unreduced and non-operated simple fracture; and result obtained from bone peg technic.

THE NEED OF SANATORIUM CARE FOR ALL TUBERCULOUS PERSONS.*

Dr. John Stewart, Booneville.

It is with some degree of reluctance that I presume to speak to such an intelligent, experienced and informed body as this is, concerning the care and treatment to be given to persons suffering with this commonest of all diseases, tuberculosis; but after many years of study, observation and experience with tuberculous persons, together with the position I occupy, may justify the words I now say to you.

The subject under discussion is "The Need of Sanatorium Care for *All* Tuberculous Persons," and the subject itself states a great truism, for *all* who are thus infected surely need such treatment. So widespread, so deadly and yet so insidious and so gradual in its progress is this dread disease that alas, many look upon it with indifference, take it "as a matter of course," and do not realize its great prevalence and dread ravage.

The t. b. germ is a monster of so frightful mien,

As to be hated needs but to be seen;
Yet seen too oft, familiar with its face,
We first endure, then pity, then embrace.

Lord Curzon, Secretary for Foreign Affairs for the British Government, said in a recent speech made in London: "Tuberculosis is *far more* deadly than war and causes infinitely more suffering than famine"; and while this is sadly true, yet we are doing little, so little, God knows, to combat this great enemy and rid mankind of its deadliest bodily foe. But how can we best fight this enemy? What can we do to rid the world of this terrible curse? The answer is: Gather the tuber-

eulous persons in properly equipped and regulated and ethically conducted sanatoria, and through such means educate *all* concerning the proper care and treatment of tuberculosis. An exceedingly large program I grant you; but one we ought to at least strive to attain, and, it is "a consummation devoutly to be wished."

There are only three ways whereby one may become infected with the germ of tuberculosis. These are by inoculation, ingestion and inhalation. The first two are so comparatively rare as need not to be considered just now. The overwhelming majority of tuberculous persons become such by breathing into throat and lungs the tuberculosis germs. Rigid control of the germ laden sputum of the tuberculous person is absolutely essential for the prevention of the spread of tuberculosis. Indiscriminate spitting is the surest and deadliest method of poisoning humanity with the tuberculosis germ, and not only should the individual be taught the proper sanitation in reference to expectoration, but strict laws should be enacted and strictly enforced prohibiting promiscuous spitting on floors, sidewalks and streets. However, I will refer to this matter again later on, in discussing proper sanitation. Now, I desire to protest against the often heedless and indiscriminate advice so readily given to tuberculous persons "to go West." This may be good advice in particular cases, but often it results fatally to such an one who heeds it. The soldiers of the allied armies in France during the World War had an expression that they used concerning a comrade killed in battle. They said of the dead man: "He has gone West." Ah, so it is often sadly true of the tuberculous person—"going west" and death are synonymous terms. *No climate* is a specific for the cure of tuberculosis. No one was ever cured by a mere change of climate. The very best climate gives the patient at the utmost but an advantage of 10 per cent, and of course that does not avail if other and far more important conditions are not met. It may do for patients who have ample means to go West if they enter the right kind of sanatorium, but it is worse than useless, I am almost tempted to say it is *criminal*, to influence patients to "just go West," except in cases that I have herein indicated. Patient after patient, many, many of them have I known to return to our Sanatorium after a

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

bitter and fruitless sojourn "in the West," broken in purse and spirit and in a far worse condition than when they left their State. Henry Watterson, who has just recently died, said years ago of a certain contemplated action of the Democratic party of which he was a devout member, "That it meant sending the Democratic party through a slaughter house into an open grave"—So the heedless and indiscriminate advice often given to tuberculous persons "to go West" is—but then I will not make the application. Now, we know that no specific cure has yet been found for tuberculosis; but that it can be mastered by long and watchful ministrations. This treatment can only be had in properly organized, adequately maintained and ethically conducted sanatoria. Oh, I know that theoretically the treatment may be given in the home; but it is almost impossible for the tuberculous person to so receive it in the home and then one is confronted by the deadly menace of infecting others, hence the need of sanatorium treatment for all tuberculous persons.

What is the proper treatment for tuberculosis? All that medical science, observation and experience learned through long years of careful study, research and experimentation can reply is that the *only* remedy is found in the sanatorium treatment consisting in isolation, proper sanitation, sunshine and fresh air, proper medical supervision, sufficient and well balanced food, carefully regulated exercise and rest, and then more rest in bed, and through it all the instillation of a spirit of hope and cheer. In the sanatorium and in the sanatorium only do we find the proper *isolation*. It cannot be had in the home except in the rarest of cases. We will never even begin to conquer this foe and eradicate this evil until we isolate the tuberculous persons. We know that tuberculosis is not hereditary. This fossil idea has long been exploded. Whole families are often afflicted with tuberculosis because one member thereof infects another and thus the endless chain is formed that drags down multitudes to untimely graves. We must segregate the tuberculous persons and thus separate them from the non-tuberculous.

Oh, it is pitiful to see the tuberculous father, mother, sister or brother in the home receiving the loving ministrations of their dear ones, and yet at the same time the life foun-

tains are contaminated even unto death of these loved ones, and yet all unconscious of the terrible deed. "These things ought not to be," and yet it can only be prevented by the proper isolation and that only can be obtained in the sanatorium. Hence the need of sanatorium treatment for all tuberculous persons. The patient must be taught the proper sanitation. John Wesley said that "Cleanliness is next to Godliness," and surely if Godliness is necessary for the healing of the soul, then cleanliness is necessary for the healing of the body. As I have said, the main danger to the well is inhaling the tuberculosis germ, and it is by coughing, sneezing and expectorating that the tuberculous person infects others.

In Bible times the leper, when he drew near other people was compelled to cry aloud, "Unclean, unclean," so that they might flee from his presence. Now, while I would *not* so require a tuberculous person; yet I do say that an ignorant and careless tuberculous person, promiscuously coughing and spitting away, is far more dangerous than any leper ever was. Death lurks in the sputum of a tuberculous person. It is "far more deadly than the asps of the Nile or the worm of the still." In the sanatorium the patients are taught and instructed to cough and sneeze only in paper napkins and to expectorate into the sputum cups provided, and both napkins and cups are then burned. Unceasing vigilance is kept over the patient that this all important rule may be carried out. We influence our patients to live in the open as much as possible. "There is healing in God's own sunlight and fresh air." We compel our patients to sleep in the open air and thus give the lungs and throat a continuous bath of wholesome air. We instruct them to lie in bed certain hours of the day and all must be in bed by 9:15 every night. Rest, more rest, and then some, is the sovereign treatment for tuberculosis. We say to the patient, "your bed is your best friend; and none may recover without proper rest." Of course, we see that the patients take proper exercise, but this must be carefully regulated and noted. The tuberculous patient must have sufficient and proper food. We study the dietary needs of the patients and building on plenty of good pure milk as a foundation we construct a dietary plan that will best supply their needs. This is important. Many tu-

berculous persons have too little to eat, or else have too much of the wrong kind of food. We strive to give to "each his due portion in due season." We enforce a regularity of living by patient; this is essential to his or her welfare. If the patient is to improve in health, and finally to overcome this dread enemy, he must continually practice a regularity of living that can only be had in the sanatorium. Not the regulation of the daily life some days and then relaxation; but the vigilant and rigid regulation every day and all days until the deadly germ has lost its grip, and health, and therefore happiness, is once more the portion of the one-time grievously afflicted. This may be irksome but it is essential. Then, too, in the sanatorium only with rare exceptions can the patient receive the proper *observation* and *supervision*. In what home can or will the temperature be accurately taken at least three times a day, the pulse beat accurately counted and noted and the respiration observed and all this recorded on a personal chart? You cannot properly treat tuberculosis without regularly and accurately noting these things and as a rule it can only be properly done in a sanatorium. Competent and experienced nurses and physicians are constantly on the job giving this proper observation and supervision in every ethical sanatorium. We constantly seek to instill the *hopeful spirit* into our patients. A clean mind in a clean body and a cheerful spirit with a resolute will over all is our *slogan*. These may seem little things, but as someone has said, "Trifles make perfection, and perfection is no trifle."

Now, the subject I have selected for brief discussion is "Sanatorium Treatment for All Tuberculous Persons." All? That is an exceedingly large order. Yet, if *any* need sanatorium treatment then surely all so need it. This State is woefully delinquent and deficient in its provision for the care and treatment of its tuberculous citizens. The State has, as you know, one, and only one, sanatorium, with a total capacity of *one hundred and eighty* patients, for the care and treatment of the thousands of sufferers with tuberculosis within its bounds. Surely, my friends, this ought not to be. Would that we had one central sanatorium with a capacity ten times greater than the present one for the care and treatment of the seemingly curable cases. One of the great needs, a need that cries out to high heaven, is for sanatorium care for

the seeming incurables. These above all others ought to be isolated in a sanatorium. Altruistic motives ought to prompt this action; but from a purely economic standpoint such action should be taken. Such patients are prone to prove a detriment to the economic welfare and progress of the home, community and the State. This may seem a hard saying, but it is a cold fact that is sadly true. The seemingly incurable patient ought to be placed in a sanatorium for one last chance in the seemingly losing fight, and to ease her or his own or another's burden. Then, too, we can never hope to ultimately win in the war waged against tuberculosis while the seemingly incurable remains in the home,—if he has a home,—because of the overwhelming danger of infecting others. As the germs multiply in the body of a tuberculous person and are thrown off in the sputum and discharges of the body without watchful care and scientific sanitation each far-advanced case is supposed to have infected at least six others before he dies. And so the deadly work goes on, ever widening in its death-dealing scope, unless arrested by isolation and sanitation as herein indicated. But how shall this be done? Let the seemingly curables be gathered in one central sanatorium and the county group plan be put into effect for those judged incurable.

The county group or Minnesota plan is this: Let two or more counties combine and build, equip and maintain a sanatorium exclusively for the seemingly incurables and thus afford proper isolation, care and treatment for them. Then we shall really begin an intelligent warfare against the spread of tuberculosis and continue in a vastly larger manner the treatment looking toward the elimination of this dread scourge from our commonwealth.

One other thing to which I call your attention. It is the basis of all ethics, it rings clear in every duty and runs like a golden thread through all right living, thinking and acting—it is this: "They that are strong ought to help those who are weak." The great, strong white population has signally failed to heed this golden rule in one shameful instance at least, and that is our duty to the tuberculous negro. There are three cogent reasons why we ought to strive mightily to check and stamp out tuberculosis among the negroes. *First*, it is our ethical duty. The negro is a fellow man, a child race, weak and greatly dependent upon us—the white people—for

guidance, sustenance and strength. In this age of dawning altruism it behooves us to hear and heed the divine command when it is said, "Bear ye one another's burdens and thus fulfill the law of Christ." We ought to feel and express in good deeds to all men, the "Charity that suffereth long and is kind," and that ought to prompt us to make a vigorous effort to help the tuberculous negro. Again, the negro is a citizen of our commonwealth, often a taxpayer, and as such he is entitled to every proportionate benefit that the laws of the State, and its *revenues* as well, confer upon its citizens. Common justice demands that this be done. Fair play calls for some action on the part of the State and on our part also, be taken on behalf of the tuberculous negro. Finally, we must help the tuberculous negro in self-defense. We are so familiar with the negroes about us that we sometimes fail to realize how dependent they are upon us and how closely they come in contact with us. They are the cooks, housemaids, nurses, laundresses, janitors, porters, barbers in our homes and places of business, and as such they come into intimate relationship to us. Because of their comparative low standard of living, crowding together in inadequate home space, want of proper nutrition and of proper ventilation and sanitation, the negro is peculiarly susceptible to tuberculosis. The percentage of tuberculous negroes is much greater than tuberculous white people, and yet, sorrowfully be it said, we have done nothing, and are doing nothing to aid them in ridding themselves of the great white plague. What a deadly danger, what a menace to the health and life of the white people, therefore, is the tuberculous negro! If for no other reason than that of self-protection, we ought to have a care for the tuberculous negro. We can only begin to help the tuberculous negro by building proper sanatoria for them. We shall never be able to wage successful warfare against the spread of tuberculosis until we awake to our duty to this child race in our midst. We can never really begin our proper effort to stamp out this disease that is killing multiplied thousands every year until we go to the poor, the weak and heretofore neglected, take hold of them and lift them out of the "slough of despond" into which they have been dragged by this most deadly and dreadful of all diseases, tuberculosis.

I ask for the proper correlation, a nearer approach, of the various medical societies, the societies formed in the State to fight tuberculosis, and the Arkansas Tuberculosis Sanatorium. We are all striving together for the same great end and we ought to have,—indeed we must have,—to have the proper success, the closest *team work*. Let us advise together, consult one another, co-operate, and in an honest spirit of mutual trust and harmony, work out as best we may the great task set before us. If we dissipate our efforts without unity of effort we shall accomplish comparatively little; but in unity there is strength, and, let us hope, ultimate victory.

Now, a final word. I beseech you medical men to thoroughly inform yourselves as to what we are doing and how we are doing it in the Arkansas Tuberculosis Sanatorium. Come to see us. Look us over. Give us a thorough inspection, help us with your advice and suggestions. Our doors are wide open to you and we bid, nay, we urge you to visit us. So many of you know absolutely nothing about the sanatorium, our ways and works. Come and see. We are your servants for humanity's sake; and we ask, and think we have the right to expect, your interest and sympathy for the Arkansas Tuberculosis Sanatorium.

DISCUSSION.

Dr. W. H. Moorhead (Stuttgart): I think that we all appreciate the doctor's paper. We all appreciate the fact that the sanatorium is the proper place to care for our tuberculous patients, if we can only get them there. But inasmuch as a great majority of them have to be cared for at home, we have got to handle them in some way until the time when places are provided so that they can be taken care of in the proper sanatoria. I want to emphasize, by relating to you an incident that came under my observation, the doctor's statement that it is often unwise to send our patients to the West. Some ten or twelve years ago, as local surgeon of the Cotton Belt Railway, I received a telegram one Sunday afternoon to meet No. 2 and attend a woman in confinement. I found, on entering the baggage car, the woman on a cot, in labor. On another cot was her husband in the last stage of tuberculosis. Six months before they had been sent from Paragould to New Mexico. A little baby about two and a half or less than two years old was with a brother of the husband in the car. The man couldn't live long and did not live long. I stayed with them until we got to Brookland, when Dr. Dickson, the family physician, from Paragould, took charge of them. That is one of the results of sending them West. I expect you all have seen practically the same thing. Who was to blame for that now? The local physician. We, ourselves, and why? Because of our feeling that we are unable to handle these cases at home. I said to our county medical society a few months

ago that we doctors are to blame for a great deal of the results that we get in tuberculosis; because, as soon as we get a tubercular patient, we throw up our hands and say we can't do anything for them. In many instances that is true. First, because we don't know what to do. Second, because we don't recognize the disease until it gets so far along that there is not very much to do for them. What we want to do is to impress the local physician with the fact that a great deal can be done in the home. I appreciate the trouble that we have in getting people in the home to do what they can be gotten to do in the sanatorium, because they will not do what we tell them. About the time that they get to feeling better they quit; they throw up their hands and they are done. I have had that experience. I send my tuberculous cases to Dr. Stewart at Booneville for treatment.

A year or two ago I had a woman who was getting along finely under my direction. Her husband said she was all right, and she didn't need any further care. Three months after that we sent her out to Booneville, and they sent her back, and inside of sixty days she was a corpse. It was one of those cases where considerable could have been done if they had followed my advice and direction; but they wouldn't let me handle it.

As you understand, we are all weak, nevertheless; but we want to impress upon the people the fact that we can do something for them. Now they think that we cannot, and they feel that they have got to go West, and the average doctor says that there is nothing for them to do except go to New Mexico or Denver or some of those other places.

Now, I haven't anything to add to the treatment; because, if I had a cure, I would be afraid to mention it, unless I had Dr. Thibault locked up at home; because he would skin me alive. (Applause.)

Dr. Gerald B. Webb (Colorado Springs): I want to say how much I have enjoyed Dr. Stewart's paper. It was very thorough and very scholarly.

Dr. Dorr: You said that the death rate was only seven per cent. You mean in all parts of the country.

Dr. Webb: Yes. Practically the death rate for tuberculosis is about seven per cent of the total mortality from all causes throughout the United States. That is, in the registration area. We have no way of telling in those parts of the country not in the registration area.

Dr. Dorr: Then, I think the other statement would be nearer right, fifteen to twenty per cent.

Dr. Webb: In a certain sense, I think you are right; but I am going by the registration area of the United States. I want to thank Dr. Stewart for his very conservative and very generous statements in regard to climate. There is one thing that I want to call attention to, and that is this question of training these patients in the sanatorium to be both careful and inconspicuous about their sputum when they get out, or they will be penalized. I was traveling recently on a train with a patient, who had practically no cough, but who had been trained in the sanatorium to use a sputum cup, and she asked for a paper cup. The negro porter asked her what was the matter, and she said that she had to spit. He ran away, and when he came back he was smeared all over with assafetida. That shows

how unjustly people may penalize the patient who is trained to be careful. It is the indiscriminate spitter who ought to be penalized.

There is another matter in regard to sending your patrons west. None of us want you to do so, especially those cases that are troublesome to you and to us. Those are, of course, the indigent migratory consumptives, who travel everywhere. They go from Arkansas to Texas and from Texas to Arkansas, and so on. There is one thing, however, which the tuberculosis cases do get in the West, those who do come there, and that is the glad hand. You must not shun them or ostracize them because they are consumptives.

The doctor has pointed out very properly the need for sanatorium beds. You must have in this State 20,000 consumptives. Now, how difficult it is going to be for you to find beds for 20,000 consumptives, when the whole United States only has beds for 65,000. When cases cannot be handled in the sanatoria, then the next question is the treatment of those cases by the physicians at home. That brings me to a point that I did not quite touch on before, and that is the opportunity for general practitioners to learn tuberculosis in the two great health resorts for the tuberculous, at Saranac Lake, New York, and in Colorado Springs. The doctors there are all specialists, they see thousands of cases of tuberculosis of all kinds, and they are eager to pass on to others what they know about this disease. At Saranac Lake the Trudeau School of Tuberculosis has been established and in Colorado Springs the Colorado School of Tuberculosis offers post-graduate work.

Dr. Frank B. Young (Gering, Neb.): The question of going out West has been raised. I want to say something from the standpoint of Arkansas and from the standpoint of the West. As a good many of you know, I had two cases of tuberculosis in my family develop in Arkansas, and I took them to the neighborhood of Denver. I found this out, that out there the patients will do far better than they will here. I speak from an experience of fourteen years of very active practice in Arkansas and about six years out in that country. I believe that I am in a better position than some of you men to draw conclusions. You can take a patient with an active tuberculosis, as I did, out there, and put them under good home surrounding and keep them there, and give them proper and intelligent care, including rest and proper diet, and secure arrest. You can not do that in a great many cases in Arkansas, I don't care what your surroundings are, in what part of Arkansas or in what part of the South you are. You have the intercurrent infections, you have the extreme high temperatures of the long hot summers, and those are things that the tuberculous patient will very seldom stand. Better general surroundings must be supplied.

Institutionalizing all tuberculous, is a great idea; but like many other great ideas, it is absolutely impracticable. What we have to do is to teach the medical profession to make an early diagnosis. The patient should not be kept at home and allowed to contaminate all the surroundings and to spread that infection. That is a problem for all general practitioners. I know that tuberculosis develops occasionally out in our country. I have seen two cases only develop an active pulmonary tuberculosis among the natives out there. I don't know what Dr. Webb's experience has been; but that has been my experience. I have seen a great many cases develop tuberculosis from secondary infections,

showing that they had had a slight pulmonary infection earlier in life.

Your patient can go West and under home care can get well, if that home care is intelligently directed, if your patient's family is intelligent and sufficiently well-to-do to go out there and keep the patient under proper conditions. But, if your patient is going out there and moving around from one place to another, you had better let him die a natural death at home; because he will die out there anyway. But, to go West and keep your family there and keep your patient under good conditions, you will get far better results than you possibly can in any part of the South. I know because I speak from experience. I know the sanatoria idea must be extended, and it is being extended. Not for the good that it does to the individual patient—that is the least of the good—but for the education they get. These patients come away from the various sanatoria well educated and well trained in the prevention of infection, and that is the good that your sanatorium does more than the good that it does to the individual patient. (Applause.)

Dr. E. E. Barlow (Dermott): I feel that the two papers just submitted on tuberculosis, by Dr. Webb and Dr. Stewart, well repays us whatever expense we may have gone to in attending this meeting. I am just wondering whether there are any means by which these papers, especially that of Dr. Stewart, can be gotten into the hands of the public, where it is so much needed; or whether we could not, in some way, devise a plan of getting reprints of that paper and sending it to the different tuberculosis associations throughout the State and to other people interested in the subject. I believe much good can be accomplished in that way.

Dr. W. M. McRae (Little Rock): We have a very perplexing problem in the management and treatment of our tuberculosis patients. I would add one more thought to what has been said, for, if it has been brought out, it escaped my attention; and that is that we know that we get these infections very early in life. That has been pretty well established. It has been stated that, after we reach the age of maturity, we are less liable to get the infection of tuberculosis; so that it must be at a very early age in life that we pick up this infection. How do we get it? The one point that I would like to emphasize, is the relation of the family to the new-born infant. It has also been brought out that the most important thing that we have in making a diagnosis of tuberculosis is a correct family history. In taking these histories, you will nearly always find that some member of the family had tuberculosis. I don't believe that the majority of them get it in the schools or in the churches or in places of congregation in the street cars and on the streets. I believe they get it at home, and I believe that the children that are infected early in life are infected by some member of the family, most likely the mother. That brings me right up to my little point, and one that a great deal of fun has been poked at in one way or the other; that is, the subject of kissing. Mothers will kiss their children. You can hardly keep them from doing it. I believe that, if every doctor here would make it a rule, when he delivers a child this year and every year hereafter, to deliver to the family a little lecture, and especially to the mother, telling them that when they feel they have got to kiss the little baby, to either kiss it on the top of the head or on the bottom of its feet or some place else be-

sides in its mouth, I believe that would do a great deal of good, and we could all take credit for having thereby prevented some tuberculosis. Let us all do just that one thing. (Applause.)

Dr. John Stewart (In response): The last question we get is, "What is your opinion of this case?" The doctor is asked, "Is there any reasonable hope of cure?" and he will say "Yes." Some doctors write to us and say, "This is a good case for you." His interpretation of that case and ours is entirely different. Our interpretation of a good case is an incipient case. That is the kind we can hope to cure. They cure themselves, if you tell them what to do. So, if we have any men here who send these "good" cases to us, will you not please reconsider your opinion of these cases?

Now, a patient, in my opinion, cannot keep up his treatment at home. They take their temperature two or three times a day and they will find that they are not running any, and they will say: "What's the use of keeping this up? I am just wasting time." We will tell them to go to bed in the afternoon. Within two or three weeks afterward, they leave us and go on home. They say, "Well, I am not running any temperature. I am going out to a bridge party this afternoon," or something else, and thereby they fan their old case up again, and it becomes more active than before.

Now, the trouble with the cases at home, nine times out of ten, is that they have already infected the family before the doctor gets them, they go to the druggist. They get tired out. The mother can't do the washing that she used to do, or she can't do the ironing. The father comes home from the field and he can't do a full day's work. And this chronic state applies with reference to most of the patients who are farmers and farmers' wives. He will go to the druggist, and the druggist will give him some Swamp Root or Peruna, or they used to give it, and it will make him feel good. The psychological effect of giving him something makes him feel good. He says, "I am all right," and he goes back to work. In a short time he is worse off than he was before.

Not long ago I received a letter from a very prominent man in the State telling me that he had a case he wanted to send to me, that of a mother. She was able to get around. She had a seven months' old baby, and that it would be criminal to take that baby away from its mother because the baby wasn't weaned. Now, God help that doctor if he is here today. I wouldn't go home if I were he. The baby should be taken away from its mother immediately after birth, if the physician knows that the woman is tuberculous. Very often, before the child is born the woman will do well because tuberculosis in a pregnant woman seems to stand up pretty well; but after the child is born the fire has been fanned and it flames up, and I have seen so many cases where the mother would die in a few weeks or a very few months after the birth of the baby. Why should that mother infect the child? The child is not infected, in our opinion, at birth, but from this fondling and this coughing in its face by the mother, while in her arms and in handling the child while in bed with her. There is no good reason in the world why that child should be infected. I think it is criminal for that doctor to recommend that that mother should keep that child and nurse it. Not that the child will get the bacillus in the milk; but it will become infected from the mother handling it, kissing it and coughing around it.

We extend an invitation to our medical men here to come and visit the sanatorium. I will venture to say that nine out of ten of you don't know anything about it. We had a man visit us not long ago, and he said: "I think the license should be taken away from the doctor who doesn't visit the sanatorium and spend at least a week there."

We have phthisis-phobia among the nurses. We have had patients come to the sanatorium, whose doctors said: "If you haven't got it, you will get it when you go there." He doesn't know a thing about it. If I were that patient, and I found a doctor saying that, I would change physicians.

We have had some nurses who came there and went around with handkerchiefs over their mouths. It is a joke.

We want you to come there. Don't all come at once. Come one a week, and you will last longer, and you will have a good time all the time you are there.

DRUG ADDICTION.*

T. B. Bradford, M. D., Brinkley.

Most men are prompted to write or speak, because of either that they want to have mercenary gain, selfish purposes, or for the good of human beings at large. I trust that the very few words that I may have to say at this time will be not for mercenary nor selfish purposes, but for the furthering the health and happiness of the race.

Not a great deal appears along the line indicated by my subject—"Drug Addiction." About the most we see concerning drugs is advertising matter calculated to trap the unsuspecting, or those who THINK they have cause for the taking of drugs. It's a pity that so great a means for disseminating good should be converted into that which brings the most excruciating and lancinating suffering. Well worded advertisements, illuminated by the hand of the artist, placed in the most conspicuous place in the daily or periodical. No wonder, then, that victims are made by the hundreds.

Those who are friendless, without the friendly word or hand to assist in driving away the feeling of despair, the glaring "ad." catches the eye and it tells the sufferer that under the spell of the DRUG comes exhilaration, weariness is banished and a feeling of well-being is manifest that will last. The tired mother with her little ones demanding many of the waking hours, is all too ready to fall a victim to the snare of the cunningly

devised advertisement seen in the magazine or on the billboard at the street corner or at the turn of the road. It is a very well known fact that advertising plays its part for those who WANT SOMETHING—the individual who has been a devotee of coffee and whose tastes frequently change or are capricious, is always ready to read the ad. of the new brand of the exhilarating drink. Many are the suggestive names of the different coffees on the market, constantly appealing to the whims and foibles of the neurotics or otherwise. To the individual who has made up his mind through study or precept that it is not for him, scarcely reads the poster. It is those predisposed to drug addiction that stop, look and even listen to what the "wild words" are saying. It is said that the first time one looks at an ad. is to only glance, the second is a more careful scrutiny, and the third is fatal. He accepts. Advertisers know this.

I am dwelling somewhat on this means of drug knowledge, for I am convinced that the day is not far distant when the State or the Nation will have to censor the billboard, the newspaper and the popular magazine in the matter of placing the habit-forming drugs before the people. It is a peculiar and passingly strange thing that those who have for years been entrusted with the overlook of the welfare of the people, especially their health, have been either derelict or handicapped in this important matter of how we shall handle the "habit-forming" drugs. For years we were careless to the point of criminality in handling opium and its derivatives. Not until very recently have we had anything like drastic laws concerning this most exacting enemy of human life, entrusting it to we doctors and druggists to dispense it *ad libitum*, failing to realize that there were many in the medical and drug profession who put the dollar above principle. I feel sure that those who have looked over the titles for the meet of the Arkansas Medical Society and saw the one "Drug Addiction," were at once reminded that morphine, cocaine, codeine, caffeine and aspirin were the drugs under consideration and that the writer would treat the subject in a manner telling of the horrible conditions found in those subject to the use habitually of those drugs.

It is not my purpose so to do. Yet, if I thought it would take that to awaken you to the full realization, as I see it, of the danger

*Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

to which our people are drifting, I should gladly do my best to describe the feelings of the addict. Possibly you know them better than I do.

In writing this paper I am attempting to arouse the medical men of the State to a greater realization as to how the drug addict is made. It is a well-known fact that in the past many of the morphine users have been made through the careless methods of the doctors who in a way were attempting to relieve the suffering of the patient. Not having fully realized the neurotic tendency of the patient, the disposition of the patient to catch at anything that would benumb the mental, physical or moral suffering, he grasped all too quickly the effects of the hypodermic or the pill given by the doctor. He was like an inflammable house, no sooner than the match had been applied, than was the house afire and in many cases beyond control.

My time is too short to dwell on this monster morphine, for I have to defer to others. Medical journals and secular publications have in the past, and many of those of the present day, contain the most alluring and deceptive appeals to the unwary to use these drugs which are habit-forming. In this day of reading by the masses of the public it is all too common to see in the press of the country a full page ad. of some drug for the relief of pain. Have you not seen in the daily newspaper a page of advertising telling just what a wonderful effect aspirin would do for the sufferer? The victim is urged to buy by the dozen if starting on a trip over the country or to the country, for in the middle of the day or the night you may have a bursting headache or stomach-ache and if you have aspirin you can take two or three tablets *ad libitum*, and the matter of ache is gone. Now, these are bought by those who are predisposed to drug addiction, and as soon as the effect of this so-called mild drug and harmless, is gone and fails to satisfy, the victim begins to look further and for stronger ones. The shrewd mercantile concern tells in the daily columns of the press, and, in fact, any publication which comes into the home, the beautiful effects of coffee which contains the well-known harmful caffeine, and soon the mother who has the care of the invalid husband and the house full of little ones begins to increase or commence the use

of the shrewdly advertised drug and in the end she is worse for having read the ad.

Now, I would not be so careful or so exacting that I would not allow a drink of coffee. Not at all. But the advertising of this drug and the telling through this ad. that it will do such wonderful things for humanity, is that to which I am really objecting. I am classing some of the seemingly harmless things which are being made so commonplace as drugs, and should be made less easily obtainable by those who should not use them. Now, this may strike the average man as going a little far, but I feel that after you have given the subject due consideration and wiped the cobwebs from your eyes, you will really see that many of the wrecks that we have in our country are there because of just such carelessness. You know full well that the drug, alcohol, does not, in a well-rounded individual, have a very serious effect; that many men whom you have known and do know have been partakers of this drug all their adult lives and to all intents and purposes have not been injured or made less efficient or proficient in business. Do not misunderstand me. I am not pleading for a return to pre-Volstead days. Far from it. Alcohol has no place in the social life of a nation any more than morphine, or cocaine or aspirin. What, though, did we do for years? We allowed the billboards, the newspapers and magazines to carry flaming ads. to catch those who not only were strong, but those who were predisposed to do the wrong thing when slightly under the influence of strong drink. Finally, we awoke to the fact that our folks were becoming alcohol fiends and those who were feeble mentally and physically and morally were being made worse. They were degrading the masses. You cannot have a fine grade of folks and allow part of the race to become degraded and bad, and still associate with the others; for the bad will marry, will intermingle with the others, and *vice versa*, and at last we shall have a bad outfit.

I repeat that it seems strange that those who are in position to know what the use of drugs will eventually lead to, should allow—almost without protest—as far as the records show—these drugs to be advertised promiscuously.

For years we have had a U. S. P. H. Department, the function of which is to oversee the health of the people, to advise the

legislative and the judicial, as well as the executive departments of our government, and whose advice ought to be taken. Our State Departments of Health of the various commonwealths of this Union are in position to materially influence any legislation that would affect for good or bad the health of the people. I am thoroughly impressed that one of the greatest needs of this body is a committee, which has the interests of the people at heart, to take a lively interest in the work of any legislative body which assembles in the State.

I would not be unmindful that we have been making some progress in the past few years along these lines, but there is plenty more to do. There is nothing that is paramount to the strong, sturdy, physical, mental and moral stamina of a people marching on to a successful termination. That drugs which are habit-forming have, and are still likely to play an important part in the future of this country is not to be controverted. The object of this short paper, therefore, is to call attention to those in position to do so, to see to it that nothing remains inimical to the well-being of our people, whereby the young, the immature, the thoughtless, would become a menace to the body politic. I hope I am not an alarmist. I trust that though I may be a John the Baptist in the Wilderness, there may be such an awakening of those who are in position, that means will be forthcoming to prevent the further pollution of the race.

In closing I wish to call attention to another drug which, in the writer's opinion, is more far-reaching and calculated to do more damage than any drug to which attention has been called. I refer to NICOTINE.

When we are confronted with the fact that fifteen hundred or more boys commence the use of this drug every day in the United States, we are made to exclaim that it is not only a cause for alarm, but a call to arms! Quite a curtailment of the use of this drug was made before the World War; but when, through the maudlin sentiment of the agitators and fostered and backed by big financial interests of this country, trainloads and ship cargoes of cigarettes were shipped across, and furnished by those at home, the pendulum has again swung far over in the wrong direction. I would not have you believe that the use of the tiny, well-rolled package of cigarettes is different in effect to

any other form of tobacco, but as it is the method by which most children commence the drug, it is to be tabooed above many other forms. No matter in what form this product of tobacco is used, there is in the end only one object to be gained and that is the effect of the active principle of the narcotic; namely, nicotine.

Like all alkaloids, it is unfit for human consumption. It is only a drug and should never have been considered other than for medicinal use. There are very few doctors in this body of men who have ever used the drug under consideration, for medicinal purposes. I do not remember to have ever used it in my twenty-five years of active practice.

Being a drug, it is described nowhere except in medical works; yet we see the widespread use. Is it not passing strange that the medical profession at large has not condemned this practice? There are very few doctors who ever take the forethought to tell those who come to consult about their illness that they are being handicapped in convalescence through the use of this drug. Yet when we read the physiological effects of the alkaloid on the warm-blooded animals we are struck with the certainty with which it does its work.

Do you know of a drug that has such quick action as an administered dose of the alkaloid? The dose is the smallest, the most sure of any we have, except possibly prussic acid.

You are cognizant that I fully realize the popularity of the drug under consideration. Yet, I would say to you that only a few years ago the use of alcohol was considered almost in the same light vein.

As the days come and go, tobacco using will, as it should, pass more and more into disrepute. The man who uses tobacco will be looked upon as a drug fiend as surely as if he used the more disreputable drugs. The opium smoker of heathen China is not to be looked upon more pitifully than the individual who sits hour after hour smoking his pipe of tobacco. The opium fiend wants and gets his alkaloid morphine, and the tobacco smoker gets his nicotine. Both in a larger or smaller degree narcotize the user. Is it not time that the medical profession, as well as other learned professions, cease to condone the use of this drug, and make an attack on it through EDUCATION to teach the coming generation to abstain from it? I trust so.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

A MESSAGE TO EVERY MEMBER OF THE A. M. S.

The annual dues to the Arkansas Medical Society, amounting to \$3.00 now are due and payable to the secretaries of the various county medical societies. The secretaries make reports to the secretary of the State society, who issues certificates of membership to all who have paid their dues and every member thus placed in good standing is entitled to a year's subscription to the Journal of the Arkansas Medical Society. Last year established a new membership record in numbers. If all members pay their dues this year, with the addition of the average number of new members, it will again break all records. With a total membership now of 1,143 the State society is in a better position than ever in its history to accomplish things.

The next annual meeting will be held at Hot Springs, May 2, 3, and 4, and it is hoped that the attendance will be the largest ever known.

The tentative program offers an innovation in that it will be largely clinical, even to the extent of cutting down the hours devoted heretofore to scientific papers. This is in the nature of an experiment, but it is believed that the result will justify the wisdom of the Committee on Program and Arrangements in making the change.

With fewer papers than usual to be read it is advisable that all who wish to contribute them announce their purpose at once, with the title, if possible, or follow with the title at as early a date as possible.

The tentative program is outlined as follows:

FIRST DAY.

Morning—House of Delegates meets.

Afternoon—General session, with president's annual address and addresses by one or two distinguished visitors.

Evening—Reception to president and entertainment provided by Hot Springs committee.

SECOND DAY.

Morning—Memorial session in respect to the memories of departed members. Visit to bath houses.

Afternoon—Clinic—Presentation of cases.

Evening—Public session.

THIRD DAY.

Morning—House of Delegates meets. Reading of scientific papers.

Afternoon—Reading of scientific papers. Election of officers. Final adjournment.

There will be social entertainment for the visiting delegates with special entertainment features for the ladies. Past experience of the hospitality of Hot Springs assures a pleasant time.

SHOULD INSANITY DEFENSE BE ABOLISHED?

In an interesting and elaborate article published in the American Law Journal, Hon. Curtis D. Wilder, Associate Justice of the Supreme Court of California, favors the abolishment of the insanity defense in murder cases and other grave crimes. At least he insists on a change from the present method of turning loose dangerous criminals who escape punishment on the ground of temporary insanity at the time of the commission of the crime.

England, he points out, has solved the problem in the simplest possible manner. A defendant acquitted on an insanity plea is committed to an asylum for life or "during the King's pleasure," which amounts to the same thing. No matter how sane the defendant afterward may become there he is likely to remain, on the theory that under like circumstances, which brought on a "brain storm" in the first case, he may again commit murder. The consequence is that insanity as a plea is never interposed as a defense except in capital cases as a last possible means of saving the defendant's life.

Justice Wilder says:

"It is obvious that the welfare of the public demands that homicidal maniacs, pyromaniacs, kleptomaniacs and sex perverts should not be permitted to run at large, without supervision, and this danger points to the necessity of doing away with insanity as a complete defense to a criminal charge."

The insanity plea, commonly called in derision the "insanity dodge," has become a farce and a shame. A man may go along among his fellow-men and none observe any symptom of insanity; he may do business successfully in competition with sane competitors, attend to his social duties, mingle among others without suspicion of being *non compos mentis* until in the heat of passion, or moved

by jealousy or other provocation, commit a murder. Then—if he has money—he may find experts to prove by his family history and by occasional outbursts of ill-temper, or perhaps by some harmless eccentricity, that he was irresponsible at the time of the commission of the crime and should be acquitted. We believe the term "brain storm" was first introduced in court to describe the mental stress under which Harry Thaw labored when he slew White. But the Thaw case is only one among scores. One of the famous cases in which the insanity plea was introduced was that of Duestrow, the millionaire murderer of his wife and child in St. Louis. For the prosecution and defense about an equal number of expert alienists testified, reaching directly opposite conclusions in answering the stereotyped "hypothetical question." As has been pointed out in a former editorial in the Journal, this contradictory expert testimony not only challenges faith in the impartial administration of justice, but is a reflection on the honesty or scientific attainments of the so-called experts. Here is the case as it stands: A hypothetical question covering the facts in the case on trial is submitted. The expert is asked "under such a statement of fact would you consider the defendant sane or insane?" And the expert for the prosecution will declare for sanity, and the expert for the defense is equally strong for insanity. What effect must this have on the layman? Either that a large fee is a factor in the judgment of the expert or that he is not qualified to judge. Even the judges are thus impressed, for, time and again, juries have been instructed to the effect that expert testimony is the least reliable of any—an instruction that bears rather heavily on the profession from either the viewpoint of honesty or capacity.

Among recent cases of national notoriety is that of the woman who slew with a hammer a supposed rival. A pathetic picture was drawn of her as a victim of arrested mental development. She was pictured as a "woman in physical development with the mentality of a child of eight years." Yet this woman with the brain of a child had sufficient mentality not only to plan an escape from a closely guarded jail, but also to evade the officers of California and surrounding States and, after thirty days, is still at liberty, no one knows where. And if a woman with the mentality of a child of eight years can outwit her jailer

and scores of officers, the question well may be asked, "What age represents their mentality?"

The real remedy, if insanity is to remain as a complete plea, is the continental plan of the State supplying the experts, not paid by the parties in interest. Judge Edge at Clerk-enwell Sessions voiced this thought from the bench as follows:

"I have no faith in expert evidence called by the parties. They might be the best of experts, but their statements are usually as wide as the poles asunder. I wish the rule here were the same as in Germany, where no expert evidence is allowed except that provided by the court."

Personal and News Items.

Dr. J. H. Stidham of Hope has moved to Prescott.

Dr. T. B. Bradford of Brinkley, and Dr. A. R. Colvin of Strong, recently visited in Little Rock.

Dr. Thomas N. Black announces the removal of his offices to Suite 409-410-411 Thompson Building, Hot Springs National Park, Arkansas.

Dr. R. Q. Patterson, Little Rock, has returned from New York, where he served one year as interne in the New York Skin and Cancer Hospital.

Among the officers elected for 1923 at the recent meeting of the State School Directors' Association we find Dr. Chas. S. Holt, Fort Smith, president; Dr. B. D. Luck, Pine Bluff, vice-president.

At the annual meeting of the Hempstead County Medical Society the following officers were elected: President, J. H. Weaver; vice-president, G. E. Cannon; secretary, M. V. Russell; delegate to the State society, Don Smith.

The following officers of the Miller County Medical Society have been elected for the year 1923. President, R. H. T. Mann; vice-president, F. M. Lennard; secretary, H. E. Murry; delegate, B. C. Middleton; alternate, R. R. Dale; censor, T. E. Fuller.

At the stated meeting of the Faulkner County Medical Society held December 21,

1922, Dr. N. E. Fraser was elected president, Dr. J. E. McMahan vice-president, and Dr. J. S. Westerfield secretary-treasurer for the coming year.

At the last regular meeting of the Sebastian County Medical Society the following officers were elected to serve during 1923: President, Dr. W. F. Rose; vice-president, Dr. W. G. Eberle; secretary, Dr. J. D. Southard; treasurer, Dr. H. H. Smith.

Plans were announced December 21, for the erection of an annex to the Warner-Brown hospital, El Dorado, at a cost of approximately \$160,000.00. The building program includes a nurses' home which will cost \$15,000.00. Paul Brown, donor of the present building, will erect the addition.

Dr. Olin West of Nashville, Tenn., until recently secretary-editor of the Journal of the Tennessee Medical Society and secretary of the State Board of Health, has been elected secretary of the American Medical Association, succeeding the late Dr. A. R. Craig.

The Central Section of the American X-Ray Society will hold its mid-winter meeting in Louisville on Saturday, February 24, 1923, for one day, including an evening session. All members of your association are invited and those interested in x-ray work are urged to attend, as we feel they will be well repaid for one day's absence from their offices. The officers are: E. C. Ernst, St. Louis, Mo., president; John T. Murphy, Toledo, Ohio, first vice-president; B. R. Kirklin, Muncie, Ind., second vice-president; D. Y. Keith, Louisville, Ky., secretary.

LOCATION FOR DOCTOR.—Five-room bungalow, large barn, poultry houses, outbuildings, etc., with nine acres of land. Small orchard, eight acres of good Bermuda pasture, two wells of good water, large dipping vat in pasture. This is an ideal home located at Traskwood, nine miles south of Benton on main line of Missouri Pacific Railroad. All the practice one man can take care of. Traskwood has large two-story brick school building, three good churches and is a very progressive community. The doctor who owns this property is leaving and is offering this property at a real sacrifice. For further particulars write, wire or call F. A. Rhodes, Southern

Trust Company, Little Rock, Arkansas.— Adv.

The following recommendations were made at a recent meeting in Little Rock of the board of directors of the Arkansas Tuberculosis Association:

“Appointment of a tuberculosis commission by the Governor.”

“Creation of a bureau of communicable diseases in the State Board of Health.”

“Appropriation by the Legislature for a sanatorium to care for tuberculous negroes.”

Those present at the meeting were: Dr. Thad Cothorn of Jonesboro, Dr. John Stewart of Booneville, the Rev. J. E. Combs of Hot Springs, H. I. Buechley of Carlisle, Dr. A. C. Shipp, T. S. Shannon, Dr. W. F. Smith, Dr. Robert Caldwell, Mrs. C. L. Schafer of Little Rock; F. G. Bridges of Pine Bluff.

THE CRAIGHEAD COUNTY MEDICAL SOCIETY.

Dear Doctor—The Happy New Year is with us, and our resolve to do more and better work must push us to the front. Our county society will meet Thursday evening, January 11th, at 7:30 o'clock, in the office of Drs. Walker and Ratliff.

“The Obstetrical Bag and the Conduct of a Normal Accouchement”—Dr. Horner. Discussed by Drs. Ira Ellis, Frank Nisbett, and W. C. Haltom.

“Surgery in Head Injuries”—Dr. P. W. Lutterloh. Discussed by Drs. McCracken, Stroud and Meyer.

“Reminiscences Apropos of Our Daily Work”—Dr. Jackson.

Remember our New Year's resolve, “to be an efficient member of the county society,” necessitates your being here. Remember the time, January 11th, and place.

Very respectfully,

O. V. Smith, President,
Thad Cothorn, Secretary.

Doctor: As you know, the dues for 1923 should be paid this month. Don't let us have to send you more than this one notice. 'Tis very disagreeable to have to send statement after statement, for it takes time, trouble, and is a little embarrassing to your secretary. Make your check payable to Dr. J. T. Altman, and send it in by return mail or bring it with you when you come to our meeting on the 11th. The dues for both the county and State societies are only five dollars.

ANNOUNCEMENT PULASKI COUNTY MEDICAL SOCIETY.

D. A. Rhinehart, President.

R. J. Calcote, Secretary.

The year 1923 is just beginning. On January 8th, the Pulaski County Medical Society will hold its first meeting. May we have a full attendance at this and all other meetings during the year, making 1923 the best the society has ever had?

The program committee has promised at least one new feature for each evening. This will be the discussion, one subject at a time, of recent advances and new developments in the field of medicine.

We are promised, in the near future, a talk on short wave length roentgen therapy by the Chief of the Deep Therapy Department of the Victor X-Ray Corporation, a man who has treated more patients than any other in America. Will you be there to hear him?

Twenty-three was the average attendance at meetings last year. Over 50 per cent of the members attended one meeting or less, and forty missed all meetings. If you were one of those you not only missed something, but the other members missed hearing you tell of your interesting and puzzling cases. The average attendance this year should be larger. Will you help?

The new health magazine, “Hygeia,” to be published this year by the American Medical Association will be discussed at the next meeting. This magazine will have a profound influence on popular medical beliefs in this community. Let us help it to a flying start.

The officers of the society need your individual help in making the Pulaski County Medical Society better, stronger, and more and more helpful than it has ever been. May they count on you?

PROGRAM

PULASKI COUNTY MEDICAL SOCIETY.

January, February, March, 1923.

January 8, 1923.

“The Relation of Eye Conditions to General Medicine”—Dr. S. R. Crawford.

“The Value of the McKenzie Polygraph in Heart Work”—Dr. W. D. Rose.

January 22, 1923.

In charge of Entertainment Committee.

February 5, 1923.

"Some Phases of General Anesthesia"—
Dr. G. F. Jackson.

"The Value of Blood Chemistry Determinations in the Diagnosis, Prognosis and Treatment of Diabetes"—Dr. S. F. Hoge.

February 19, 1923.

"Granuloma Inguinale"—Dr. R. M. Blakely.

"The Value of Basal Metabolism Determinations in the Diagnosis and Treatment of Hyperthyroidism"—Dr. A. G. McGill.

March 5, 1923.

"Quartz Light Radiation in the Treatment of Morbid Conditions, With Report of Cases"—
—Dr. J. H. Sanderlin.

"The Schiek Test and Toxin—Antitoxin in the Immunization of Children Against Diphtheria"—Dr. A. C. Kirby.

March 19, 1923.

"Leg Ulcers"—Dr. G. V. Lewis.

Visiting physicians are cordially invited to attend our meetings.

County Societies.

SALINE COUNTY.

(Reported by J. M. Phillips, Sec.)

The Saline County Medical Society elected the following officers for the ensuing year. Dewell Gann, president; J. M. Phillips, secretary; D. Gann, delegate to State society; J. M. Phillips, alternate.

After freely discussing several interesting papers and having a jolly good time the meeting adjourned.

MISSISSIPPI COUNTY.

(Reported by Flem D. Smith, Sec.)

The Mississippi County Medical Society met in Blytheville, December 12, 1922.

Present: Hudson, Lowry, Saliba, McRae, McCall, Stevens, Hill, Ray, Sims, Husband and Smith.

The following officers were elected for the ensuing year: President, J. A. Saliba, Blytheville; vice-president, O. Barksdale, Wilson; secretary, F. D. Smith, Blytheville (re-elected); board of censors, W. S. McCall, S.

A. Lowry, H. F. Crawford; delegate to State society, J. F. Sanders; alternate, F. D. Smith. H. C. Sims was elected to membership.

CRAWFORD COUNTY.

(Reported by S. D. Kirkland, Sec.)

The Crawford County Medical Society met in Van Buren, December 28, 1922. President O. M. Bourland presiding.

The following members were present: Wigley, Grant, Parchman, Dibrell, Hardin and Kirkland. Dr. Emerson of Chester, was a visitor and made application for membership.

Dr. Wigley read a paper on "Toxemia of Pregnancy," which elicited general discussion.

Dr. Grant was asked to read a paper at the next meeting, which will be January 25, at which time the society will have a banquet and elect officers for 1923.

DREW COUNTY.

(Reported by Stanley M. Gates, Sec.)

Drew County Medical Society met December 19, 1922, and officers were elected for 1923, as follows: President, Dr. E. R. Cotham; vice-president, Dr. M. Y. Pope; secretary Dr. F. L. Duckworth; censor, Dr. F. J. O'Connor; delegate, Dr. F. J. O'Connor; alternate, Dr. S. M. Gates.

A discussion was had on the advisability and practicability of the Arkansas Medical Society forming a State defense association for the protection of its members from malpractice suits, etc. It was finally decided to have our delegate to the State convention investigate how the plan has worked in other States and present his views and recommendations to the Arkansas State society.

INDEPENDENCE COUNTY.

(Reported by M. S. Craig, Sec.)

After taking dinner together at the tea-room, the Independence County Medical Society met in regular session, Monday, December 11, 1922. The following were present: V. D. McAdams, Cord; I. M. Huskey, Moorefield; L. T. Evans, Mt. Pleasant; Paul Jeffery, Bethesda; T. N. Rodman, Newkirk; J. B. Roe, Newark; V. L. Paseoe, Newark; L. E. Reaves, Salado; W. B. Lawrence, Batesville; R. C. Dorr, Batesville; J. H. Kennerly, Batesville;

O. J. T. Johnston, Batesville; F. A. Gray, Batesville; M. S. Craig, Batesville.

Officers for 1923 were elected as follows: President, T. N. Rodman; vice-president, I. M. Huskey; secretary and treasurer, M. S. Craig. V. D. Adams was elected as delegate to the State Medical Association meeting, and O. J. T. Johnston as alternate.

Dr. Rodman read a very interesting paper, "Latest Development in Sero-Therapy;" Dr. Gray read a paper on "Menstrual Disorders," and Dr. Craig read one on "Scarlet Fever." Each of these papers elicited extended discussion. At a late hour the society adjourned to meet Monday night, February 12.

CRAIGHEAD COUNTY.

(Reported by Thad Cothern, Sec.)

The Craighead County Medical Society met in regular session this evening in the office of Dr. Overstreet. Dr. O. V. Smith read his paper, "Colds, Their Prophylaxis and Management," which was very much appreciated and quite generally discussed. The other essayists being absent, the next order of business, the election of officers for the ensuing year was taken up.

The nominating committee, composed of Drs. Walker, Jackson and Overstreet, appointed at a previous meeting, made their report, as follows:

President, Dr. O. V. Smith; vice-president, Dr. R. W. Rateliff; secretary, Dr. Thad Cothern; treasurer, Dr. J. T. Altman; censor, Dr. E. J. Horner.

They recommended that the election of delegates to our State society be postponed until some time in the spring, as it was hard to say now who would be able to attend the State meeting.

A motion was made and carried that the report of the committee be accepted, and that the officers recommended be elected by acclamation. After some discussion as to our work for the coming year, a motion to adjourn to partake of our host's refreshments in the parlor of the Bell Pharmacy, was unanimously carried.

BENTON COUNTY.

(Reported by C. A. Riee, Sec.)

The Benton County Medical Society met in regular session December 12, 1922. Officers

were chosen for 1923 as follows: President, T. E. Hodges, Rogers; vice-president, C. S. Wilson, Gentry; secretary-treasurer, C. A. Rice, Rogers; member of board of censors, J. L. Smiley, Siloam Springs; delegates, C. A. Riee, Rogers; J. L. Smiley, Siloam Springs; alternate delegates, Guy Hodges, Rogers; J. L. Clemmer, Gentry.

A resolution placing the stamp of disapproval upon the following letter, and asking that Journal of the Arkansas Medical Society publish resolution and letter, was adopted.

Dear Sir—The government records show that the medical profession has been reduced one-half in ten years. In Arkansas physicians have moved to the larger towns and cities until country homes and small villages are destitute of medical aid, having to send ten to twenty-five miles for a doctor who arrives too late and whose charges are exorbitant. Under the existing laws the practice of medicine is prohibitive except to the wealthy, therefore a large majority of our citizens demand the enactment of a law to encourage the practice of medicine and supply medical aid in remote sections of the State, and they ask your consideration of a bill authorizing either of our boards of medical examiners to grant a five-year permit to any one who has resided in the State five years and attended one term of a reputable school of medicine or hospital, or who has read medicine for two years under a licensed physician, to practice medicine anywhere in the State, except in incorporated towns and cities, excluding the administration of the legally prohibited narcotic drugs and surgery, that at the end of five years such physicians shall have an examination by a State board of medical examiners on their efficiency, or knowledge of medicine.

Believing that you stand for the Constitution of the United States, which guarantees equal rights and a pursuit of business to all men, regardless of wealth, the above is respectfully submitted.

Medical Aid Committee.

(Editor's Note.—Secretary Riee reports much interest manifested in matters medical during 1922, and a gain of five new members, or 14 per cent increase. No deaths within a period of five years and a very slight loss in membership by removals in the last decade.)

Book Reviews.

Essentials of Laboratory Diagnosis—Designed for Students and Practitioners.—By Francis Ashley Faught, M. D., Philadelphia. Seventh revised and enlarged edition. Published by F. A. Davis Company, Philadelphia. Price, \$4.50.

This edition contains eleven full-page plates (four in colors) and seventy-eight text engravings. It gives in a concise manner the analytical methods employed in the clinical laboratory that will especially appeal to the general practitioner.

What Comes From What—or the Relationship of Animals and Plants.—Charles L. Abbott. Published by the author, 600 Ivy Street, St. Paul, Minn. Price, \$1.00.

This little book, illustrated with many diagrams, gives expert opinions pertaining to the evolution of the species. Diagram 41 refers to Primates. The Primates include man and the apes, monkeys, and lemurs. Very interesting views are given of the origin of man. Founded upon facts of science, adds to his dignity and suggests untold future possibilities.

The Mechanics of the Digestive Tract.—By Walter C. Alvarez, M. D., San Francisco, Calif. With twenty-two illustrations. Published by Paul B. Hoeber, 67 East 59th Street, New York. Price \$3.50.

This new and interesting subject is described in twelve chapters as follows:

The Autonomy of the Digestive Tract.

The Myogenic Nature of the Rhythmic Contractions and the Functions of Auerbach's Plexus.

The Smooth Muscles of the Gastrointestinal Tract.

The Different Types of Peristaltic Activity. Gradients.

The Underlying Basis of the Rhythmic Gradient.

Other Related Gradients.

Graded Difference in the Stomach Wall.

Practical Applications of the Gradient Idea.

Reverse Peristalsis and Its Symptoms.

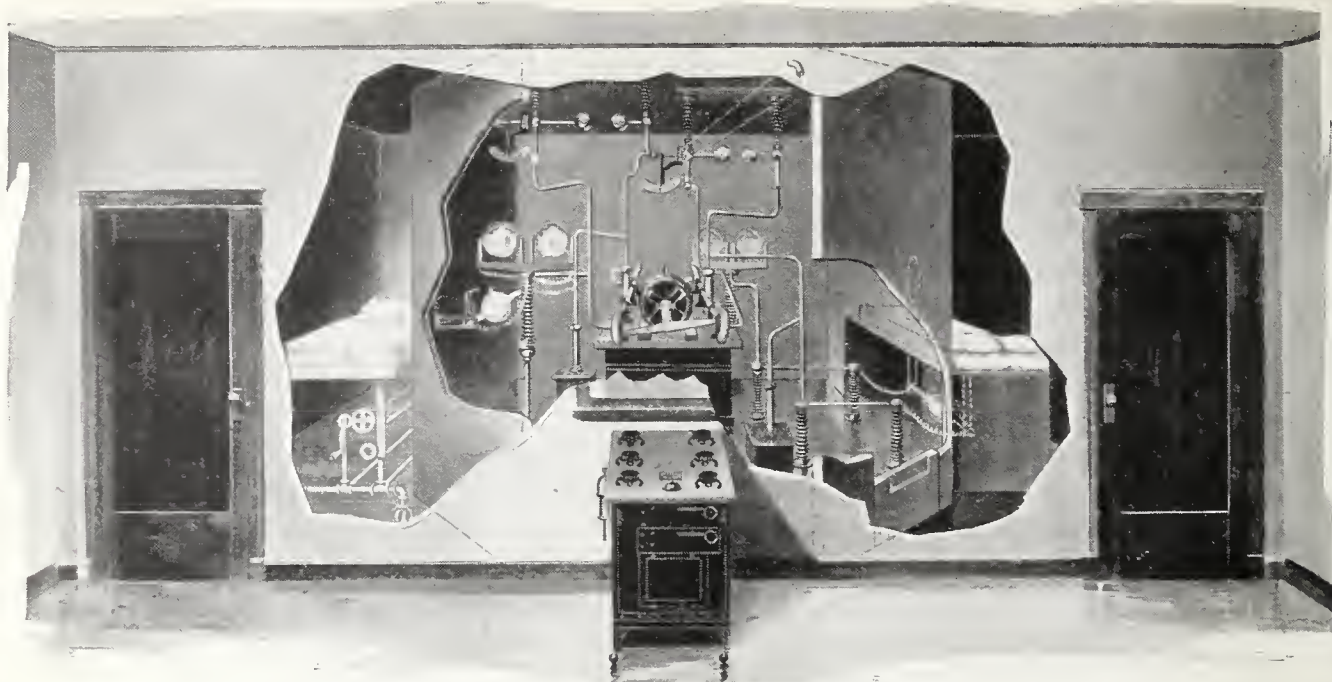
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FIELD OF DEEP CANCER

Our results after six months' experience with the High Voltage X-Ray warrant the statement that practically all cancer patients, regardless of the stage of the disease, are markedly improved by the new type of treatment.

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Our treatment department is especially designed and arranged to *Treat Cancer Patients*. All possible precautions are taken to eliminate dangerous and annoying features. Treatment rooms are private, furnished with comfortable beds and personal attention is given each patient while undergoing treatment.

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Original Articles.

MODERN CONCEPTS OF TUBERCULOSIS.*

Gerald B. Webb, M. D., Colorado
Springs, Colo.

"Nothing about a science is more interesting than the progress of that science itself." So wrote Laennec, the originator of the stethoscope. The history of tuberculosis, well worth studying, illustrates clearly the stumbling through darkness to the light. In the short time allowed me today I shall try to review rapidly some of our present conceptions of tuberculosis.

Epidemiology.—The disease is universal, the mortality being greatest in these races: The Polynesians and the Sengalese French troops during the war, which have not been in prolonged contact with the bacillus. Practically all civilized races have been and are infected, and the rapidly decreasing death rate from tuberculosis suggests there is a rapidly increasing racial resistance, somewhat independent of our efforts of control. While our greatest dangers of infection with frequent and massive doses, come from the careless consumptive; yet as Calmette has pointed out, any infected human being may be a "shedder" of this disease, just as any infected cow, without open lesion, can infect the herd.

Mortality.—Except in those nations suffering from lack of food, a remarkable decrease in the death rate of tuberculosis has recently occurred. The campaign of education is no doubt telling, and the stress now laid on the upbuilding of poorly nourished children should add more momentum to this decrease. The National Tuberculosis Association co-

operating with the Metropolitan Life Insurance Company in the Framingham demonstration, by reducing the mortality in five years, to one-third of what it had been, has pointed a way which other cities will now follow.

Infection and Reinfection.—Practically all children are infected by the age of puberty. Such infection frequently means mild disease, and in some may lead to adult phthisis. By many, this childhood infection means protection, so further exposure to tuberculosis is not to be feared. Other pathologists and students consider there is danger of reinfection from tuberculous cases, dosage and virulence of bacilli determining this.

Prevention.—Stress is now applied to the building up of children who are underweight, the removal of children from constant exposure to consumptive parents or carriers, to education that tuberculosis is a filth disease, and the product of an incomplete civilization. No method of vaccination is yet in sight.

Diagnosis.—Were only one method available in the diagnosis of tuberculosis, it would be that of careful history taking. Exposure, especially in family, malaise, weight loss, fever, cough, pain, pulse, bloody sputum, sweating, headaches, easy fatigue, nervous and mental manifestations, and many other points can be brought out. Careful clinical and sputum examination, x-ray especially in children and in suspected intestinal complication, and blood lymphocyte counts are to be emphasized. The importance of early diagnosis, and the differential diagnosis from coughs due to bronchitis associated with sinus disease should be stressed. Tuberculosis can be confused with a large number of diseases. From the Framingham experience, physicians must realize that tuberculosis in their practices is not uncommon, but is found in 2 per cent of their patients. Post-graduate courses must be

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

sought by up-to-date physicians if such patients are to be saved from patent medicines and irregular practitioners.

Treatment.—Every method of cure has failed except that of rest, combined with fresh air, good food, sunlight and artificial sunlight. To surgeons we owe the debt of first recognizing the value of rest, in the treatment of tuberculous joints. In laryngeal tuberculosis we enjoin silence, and the use of scratch pad and pencil. In pulmonary tubercle we have postural rest and artificial pneumothorax. By postural rest we mean complete and thorough rest on the side of the more actively diseased lung, this rest to be continued over a long period. Our studies on normal and diseased lungs, show that in postural rest the lung of the recumbent side is very thoroughly splinted, the ribs closely approximating, the heart and mediastinum dropping markedly over and the diaphragm pushed up by the abdominal viscera, decreasing the excursion which at first is increased.

Of greatest importance is the intelligent co-operation of the patients, acquired by encouragement and tact.

Home Treatment.—There are only 65,000 available sanatoria beds, with a turnover of three per bed each year; less than 200,000 patients can be cared for and educated. The Framingham experience teaches us that there are one million active tuberculous cases and another million inactive cases in the United States.

Some 800,000 victims of tuberculosis, therefore, must have home care, and indeed to these we should add the ex-sanatoria cases, so many of which relapse from need of after care and guidance.

In all cities and smaller towns there must therefore be physicians trained in tuberculosis who can meet this need, for manifestly enough sanatoria beds will never be available. There can be no doubt that sanatorium care is best, and it may be possible to increase the turnover, per year, as well as the number of institutions.

Further Needs.—The increase of dispensaries and of visiting nurses is not keeping pace with the needs.

The death rate from tuberculosis has not fallen so rapidly with the negro as with the whites. Possibly the racial development of increased immunity is a factor, but as Frankel

has pointed out education which has been broadcasted by the National Tuberculosis Association, and by excellent State Associations like your own, has not yet fully reached the negro.

The "game of getting weighed" is fortunately becoming very popular in our schools. Regulation of sports and exercises is required, as also a more careful guidance of the whole life of the child, social as well as medical.

"By sports like these are all their cares beguiled;
The sports of children satisfy the child."

These lines were once written by a member of our profession, I would be permitted to change them to read:

By studies in nature's field,
Are all their cares beguiled:
The health and happiness, such yield,
Satisfy the child.

The tubercle bacillus should be considered an infinite particle of nature, misguided by man, with such woeful consequences.

DISCUSSION.

Dr. H. Thibault (Scott): I want to commend this paper for the statement of one fact more than anything else, and that is the fact that the treatment of tuberculosis is rest. Yesterday I had the pleasure of addressing the Arkansas Tuberculosis Association on special training of physicians and nurses in the treatment of tuberculous patients; and the only phase of the subject that I spoke on was the necessity of training those physicians and nurses who are handling those unfortunate cases broadly enough that they can protect those patients from the parasites, professional and otherwise, that have cures for tuberculosis; and that in the treatment of tuberculosis rest, food and air are practically the only things of value. The idea that a drug or a vaccine or a serum can do no harm in the treatment of tuberculosis is the biggest fallacy that can enter anybody's head. The minute you give the patient anything that takes his mind off of those three cardinal things, he loses the sense of value thereof, and in the end loses his life by resorting to other measures to the exclusion of these necessities.

I am certainly glad Dr. Webb brought out that one point, rest, and to condemn the use of drugs, serums and vaccines. It is surprising that, in the medical profession of Arkansas, when millions of people of every county in Arkansas and in every county of every State in the Union, are praying, paying and dying for a cure for tuberculosis, we have men that will pretend to their patients to have a cure for tuberculosis which they have never made public.

Another point is the element of time in the treatment of tuberculosis. The hardest thing in the world to impress upon the patient is the fact that, if he is to get well or if he is to get better, it is going to be just as slow or probably more slowly than the time in which he got sick; and to make them believe that the most dangerous time with every one of these conditions is when the

patient's symptoms have stopped. When he hasn't fever, when he hasn't any night-sweats, when the cough is better, that is the very time when he is going to over-exercise, get less sleep or do something else that upsets the whole three months' or six months' work that we have done on him. I make it a point to impress upon every tuberculosis patient that I have this one fact, that the most dangerous time in their disease is when they think they are getting well. Right then is when nine out of every ten of them "spill the beans."

It is a great shame that all of these men who claim to have cures do so *sub-rosa*. You can not get one of them, as I said yesterday before the Arkansas Tuberculosis Association, to get up before a body of men like this and give the details of their cure, to save your life. As it was expressed by one man once who read a paper on it, he thought it was of sufficient importance to keep it secret. It was. It always is. If a man discovered anything that is worth a cent in the treatment of tuberculosis, and for his own personal benefit, financial or otherwise, he should conceal a discovery of anything that would cure tuberculosis in a few weeks or a few days and keep it to himself, it would be a fearful thing. But any man whose mind and heart and devotion to his medical profession are so self-centered that he could keep such a discovery to himself, never could forget himself long enough to discover anything. (Applause.)

Dr. D. C. Walt (Little Rock): The greatest foe to the human race is ignorance as to the proper care of the body every day. Certainly a condition that can be corrected would be more easily prevented. If we had a good system for each day's care, the ordinary individual has intelligence enough, if properly educated, to co-operate with the doctor to prevent tuberculosis.

If the horse and other domesticated animals are worth daily care, the man should be. I have never seen a well man or woman in my life. To simply make a diagnosis of tuberculosis and turn the patient back to his family, and tell them to give him plenty of nourishing food and rest, is inconsistent with the idea of active care each day. The doctor certainly could help them manage to an advantage the intake and output of the body each day, if he knew how to measure those values better than the laymen.

We will never develop a system of care to the highest value as long as the doctor, his wife and babies, together with his patients, live as if they had a special dispensation, live from the point of appetite more than reason, drain from the point of necessity more than requirement, care for their bodies only when they have to, eat because it tastes good, eat because they want it, eat to please their neighbors and cooks, eat to keep it from spoiling, make garbage cans of themselves, clean up only when they have too, and compensate only when in distress; at the same time harnessed in clothes, polite in society, wedded to their business, yet, governed by the same law that governs all animal life.

The man that would consume as much meat on a hot July day in a tropical country as he would in the Arctic, thus loading his blood stream with an amount of carbon that would attract sufficient oxygen to produce excessive combustion in the body, at the same time exerting little or no effort to insure active elimination, would surely put his body in a bad condition and make himself more susceptible to the various disturbances incident to each day's life.

In all the discussion here I have not heard a single word about drainage, as to how often, the character and amount, which must be a subject of paramount importance.

Dr. A. C. Shipp (Little Rock): I enjoyed Dr. Webb's paper very much. This is not the first paper that I have had the pleasure of hearing from Dr. Webb. I have known him for some time. I want to particularly emphasize one thing that Dr. Webb mentioned in making the diagnosis of tuberculosis, because there is where most of us fall down more than anywhere else; that is, we don't make our diagnosis early enough, we don't take our history carefully enough, we don't take into consideration the environment of the patients when they were children at the most susceptible age for infection, which will explain many rather hidden symptoms that come along, which bring on these complaints later on in life, and which will lead the careful diagnostician to the detection of the disease. The detection of these early symptoms will enable the doctor, by taking care of the patient, not ignoring him, not turning him loose and letting him go without advice, to cure that patient by putting him to rest and insisting upon his staying at rest. The patient will not rest unless the doctor keeps right after him. That is the reason why the sanatorium gets such good results and why home treatment so often does not benefit. When we find such patients as that, if we can in our follow-up work take care of them in the home and give them close attention, all well and good. But rest by all means, is the most important of all our treatments for tuberculosis.

The next point we should emphasize, as has already been mentioned, is that of diet, and that diet should most certainly be supervised.

In dealing with tuberculosis, more than all other things, we must remember that it is a medical disease, and, as well as all other diseases, must have the careful, studious supervision and guidance of the earnest, honest, careful and interested physician whose greatest care is the welfare of his patient, the protection of the community and the welfare of all who come in contact with this patient. I don't think that there are any members of this association that would wilfully do anything that would ruin the welfare of their patients. If so, they should be found out and be investigated.

Now, as to the treatment, which subject was injected into this discussion, I don't think Dr. Webb much more than mentioned it. The treatment has not yet been fully worked out. Dr. Webb, in his paper, rather gave us the idea that there was much yet to be desired along this line; that, so far as we have gone, the best thing that we have found that has stood the test of time is rest, rest, rest. But he did not turn back and look over his shoulder and say we would never be able to find or have anything that would, when added to rest, be an adjuvant and a help to the patient in building up anti-bodies in a normal way and aid in throwing off this disease. No less an authority than Victor Vaughan, of Ann Arbor, speaking before the convention in St. Louis, said that we must look for the dawn of a new era, and that we have men in America who are competent enough to work out this problem in time and give us something that will help solve the question of tuberculosis. Have we a cure for it? No. Does anybody claim to have? I know of no one who claims to have a cure for tuberculosis. I know of no one that ever made the claim of having a cure for any disease, as

Dr. Walt says. We think we have a specific for malaria. I took quinine for six months last year, and I carried it right up to within the last month. I had a chill two weeks ago today, and found six parasites in the blood, upon an examination. Now, I wish some one would tell me how to get rid of that. And yet, ordinarily, we think we can control it. Because of our failures in treating malaria we do not despair, neither should we cease our efforts because of our poor success in treating tuberculosis.

Dr. R. C. Dorr (Batesville): My understanding is now that 80 per cent of the human family has tuberculosis and that the death rate is only about fifteen or twenty per cent. It is my understanding that the greatest cause of death in tuberculosis is mixed infection. The rest cure, of course, has been known for a long time. Rest, diet, sunshine, and fresh air, are four of the essentials in the treatment. Most people who die with tuberculosis, die when they get the mixed infection, according to my understanding.

Dr. Gerald B. Webb, in response: I am very much obliged to Dr. Thibault for backing me up on the question of rest. I did not mean to exclude all other things, because there are other helpful remedies in certain cases of tuberculosis. In surgical tuberculosis, we still feel that tuberculin is of value. In certain cases vaccines are of value. But, I do want to impress upon you one thing, the importance of rest, very thoroughly applied, kept up over a long period of time and not withdrawn too soon, as Dr. Thibault so excellently emphasized. That is, as he said, where we make all our mistakes. It takes a long time, and you must prepare your patients always for a siege of two or three years' with this disease.

Dr. Walt brought up a very important point, and that is the co-operation of the patient. Of course, that is most necessary; and the sanatoria are better for insuring that co-operation than the general practitioner. It is our duty to use a great deal of tact. Our consumptive patients are very nervous and irritable. Sometimes in going through a sanatorium I think we feel that we are handling a lunatic asylum. We have to have an enormous amount of patience with them. The best co-operation, of course, comes in the sanatorium.

Dr. Walt, just as you put your splint on the leg, and that's what you rely on to get well of tuberculosis of the knee; so it is the same principle which we physicians have followed with reference to the lungs.

Dr. Shipp emphasized the importance of history taking, supervision, and, in general, the treatment. Of course, much is yet needed to perfect our treatment. Ehrlich, in his last lecture delivered in London about eight or nine years ago, said that the day was coming when we should have a chemico-therapeutic agent for nearly all infectious diseases; but he excepted tuberculosis, as we have no "lead," no clue in tuberculosis. You are all familiar with malaria, where we have a lead in quinine. You know of syphilis, where we have a lead in mercury and arsenic. But there has been no medical lead, so to speak, leading up to any clue in the medical treatment of tuberculosis.

Dr. Dorr spoke of the death rate. It is only about seven per cent of the total deaths from all causes, or a little over 100 per 100,000 living. It used to be ten per cent. It has been reduced now to seven per cent or about that. As to the mixed infection, it is true that many advanced cases and

all cases sooner or later have mixed infection; but the tubercle bacillus of itself, as shown experimentally on animals, can apparently do anything that mixed infection can produce.

REPORT OF A CASE OF CONGENITAL HYPERTROPHIC PYLORIC STENOSIS.*

Wm. R. Brooksher, M. D., Fort Smith

George E., male child, born January 4, 1922, after a long, difficult labor, delivery by forceps, well developed, normal child, weight at birth, 8½ pounds; mother primipara, age 29. Nothing abnormal noted during the first week, nursing, bowel movements, etc., about normal.

At the beginning of the second week, child began to have occasional attacks of vomiting. These became more frequent until about the fourteenth day when it was vomiting immediately after almost every nursing. About this time it was noted that practically nothing was passing by the bowel. The small stools which passed resembled meconium. The urine became more scanty and only very small quantities were passed at long intervals. Vomiting was projectile, not accompanied with any of the ordinary symptoms of distress or nausea and when stomach was empty, child looked contented and happy and was ready for breast again. Sometimes there would be quite an interval, perhaps two or three nursings, between the attacks of vomiting. Under these circumstances, when vomiting did occur, it would vomit the entire amount of the different nursings, accounting for practically all of the milk ingested. Child rapidly wasted away until at the end of six weeks, it weighed only five pounds and was a very poor, scrawny specimen of humanity. Pulse at that time was almost imperceptible and ran from 140 to 150, the respirations were 30 to 35 and the temperature 101°.

Physical examination at this time revealed extreme emaciation and malnutrition, eyes glassy and lusterless, complexion sallow, skin dry and drawn and mucous membranes anemic to a marked degree. The chest was surgically negative, the abdomen distended, tympanitic and stomach outline was well shown with peristaltic waves distinctly

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

marked passing down from eardiac end of stomach about half way and apparently dividing. No antiperistaltic wave was seen. A definite tumor was palpable at the pyloric end of the stomach which was assumed to be the hypertrophied pyloric ring. The extremities were negative. Attempt was made to secure a fluoroscopic examination of the stomach, but was able to get such a small quantity of barium into the stomach that the examination was practically valueless. However, a very minute trace of barium was seen to enter the pyloric constriction. After about five minutes a very strong antiperistaltic wave was seen to start at the point of constriction and the entire contents of the stomach were projected through the esophagus and mouth. Notwithstanding the hopeless condition of the child, operation was advised as being the only possible chance for recovery. It was realized that a general anesthetic in this condition would prove fatal within a very few minutes so an attempt to do the operation under local anesthesia was decided upon. Child was enveloped in warm blankets, the region of the stomach exposed and prepared for operation in the usual way and infiltration anesthesia with one-fourth per cent procain was effected in the usual way. A right rectus incision, two and one-half inches long, immediately below the costal margin, was made. The child apparently experienced no pain during this part of the operation except on the introduction of the needle for infiltration of the skin. On opening the abdomen, the stomach was delivered with some difficulty, its walls very much thickened and its lumen dilated. On reaching the pyloric end a ring-like tumor was felt, revealing the exact characteristics of the tumor felt through the abdomen as previously mentioned. The pyloric end of the stomach and the duodenum were bound down so closely that it was with great difficulty that the pylorus was brought forward sufficiently to visualize and manipulate. On inspection, a hard tumor mass about one inch in length, involving the entire lumen of the pylorus, was seen. It was decided to do a modified Rammstedt operation. With the pylorus steadied with the fingers of the left hand, an incision was made throughout the length of the tumor down to, but not including, the mucous membrane. The tumor mass was dissected free of the mucous membrane on each side of the incision, leaving the mucous mem-

brane denuded for about three-quarters of an inch in width by one inch in length. This raw surface was covered with the gastro-epic omentum. The wound was closed in the usual manner, the entire operation occupying twenty-eight minutes. Child was put to bed surrounded with hot water bottles, apparently little the worse for the operation. After three hours' feeding, consisting of dilute glucose solution, half ounce in quantity, was begun and continued for the first twenty-four hours at hourly intervals. After this weak solution of modified milk were given at alternate hourly intervals, the glucose solution being continued. This feeding was continued for the first three days, gradually increasing the strength of milk feedings and lengthening the intervals between feedings. Child vomited not over six times subsequent to the operation within the first two days and none thereafter. However, on the afternoon of the second day child had a number of convulsions, which were probably due to inanition. After hovering between life and death for about a week, the child began to show distinct signs of improvement and from then on, rapidly recovered, weighing at this time twelve pounds.

In conclusion, I think it but fair that I should state why it was that this baby was allowed to go undiagnosed for a period of six weeks and become practically moribund. My brother, Dr. S. L. Brooksher attended the mother at the time of delivery and for the ensuing week, but as I have previously mentioned there was no trouble noticed at this time. When the baby was about a week old, he left town and about three or four days later I was called to see the child because of its vomiting, not all of its nursings, but most of them. After a very cursory examination—I was in a hurry—I told the mother the trouble was due to the fact that the baby was overfeeding and was nursing at too short intervals. I advised that the baby be fed at three-hour intervals and to cut the amount of each feeding down one-third and that the trouble would then cease. This diagnosis was made simply because therein lies the trouble in most cases of infantile stomach disturbances. Of course, at this time, the baby looked well and his nutrition had not as yet begun to suffer. A day or so later I was called again and asked to come out to see the baby because there had been no improvement in his

condition. I told them that it had not had time to improve as yet but to continue the feeding as I had advised and that it would be all right. I further said that I did not have time to come by and see the baby every day, which statement offended the parents and they looked elsewhere for advice, consulting two or three different physicians within the next three weeks, and the mother said she was finally told nothing could be done for the baby. Thus it continued until one day when the father came to my office to get a prescription for the mother and I asked about the baby, who was six weeks old at the time. He said that the baby vomited everything it nursed. I immediately suspected trouble and asked him to go home and weigh the child and let me know the weight, which was five pounds. I called to see the baby in the morning and never have I seen a more hopeless appearing case of congenital hypertrophic pyloric stenosis. I advised operation immediately though I deemed this measure practically hopeless; but it was either operate or sit by and watch the baby starve. The parents consented and you have heard the rest.

DISCUSSION.

Dr. W. V. Laws (Hot Springs): Congenital stenosis of the pyloric is a very interesting condition from the standpoint of diagnosis. I believe that if we did not slip up on the diagnosis and would operate on these cases at the right time most of them would be saved; but the trouble is, as Dr. Brooksher's case illustrates, that the diagnosis is not made early enough. Either a Rammstedt's operation or Strauss' modification of the same operation is the best way to relieve this distressing condition. I want to congratulate Dr. Brooksher on his good judgment shown by operating on this case and its successful outcome.

Dr. M. D. Ogden (Little Rock): The case is a very interesting one from two viewpoints. One is that Dr. Brooksher saved this case by two procedures. If either one of them had been neglected, he probably would have lost it. First, by local anesthesia, and, second, by his Rammstedt operation.

Some years ago I was very much interested in seeing Dr. Scudder do several of these, and at that time he was advocating very strongly gastro-enterostomy for pyloric stenosis. His mortality was high, and his cases were in far better condition than the case which Dr. Brooksher mentioned. Gastro-enterostomy, in my opinion, holds no place whatever in the treatment of congenital hypertrophic stenosis of the pylorus. It is too much of a time-consuming procedure. There is no use for it as long as we have the Rammstedt operation, which has proven satisfactory.

I notice also, in his description of the technic, that he took no stitches in the pylorus; but merely incised it down to the mucosa, stripping the pylorus from the mucosa and then, I assume,

covering the defect over with a little piece of omentum, which also has many points of superiority over the other way, of sewing it up in the opposite direction and lengthening the incision, for this is also time-consuming.

Local anesthesia was the only way he could have gone into that case and not have lost it. If he had done it without any anesthesia at all, the shock would probably have been too much, and certainly if he attempted any other anesthesia the child, at that stage, would probably have died in the first six hours.

I think the doctor has more than atoned, by his care and his good judgment in the case, for any carelessness that he admits in the first stages of the disease.

Dr. E. F. Ellis (Fayetteville): Dr. Brooksher is to be commended on the splendid way in which he handled his case. I was not as fortunate as he was.

Dr. R. C. Dorr (Batesville): Dr. Brooksher deserves credit for taking the chance of saving the child. I think it is well that he did in this case.

Dr. H. E. Murry (Texarkana): Dr. Holt says that the cause of congenital spasm or hypertrophic stenosis is either spasm following the hypertrophy or hypertrophy with a spasm. There are two types: The mild type, with a very mild loss of weight per day, less than one ounce per day, with a small stool and with mild vomiting, indicating the small passage of food through the duodenum. The severe type is the case where there is projectile vomiting, the stool only of meconium and where there is oliguria and a loss in weight of as much as three ounces a day.

The mild type is treated by washing the stomach, feeding by rectum and changing the diet mildly from time to time so as to encourage the stomach to take care of it, and these sometimes recover. They recover very slowly, however, he says, and sometimes even will have to be operated on in later life.

The severer case is the type, of course, that Dr. Brooksher had, and there is only one method of treating it, as he says.

Dr. Downs, of New York, who is surgeon for the Child's Hospital there, probably has done more Rammstedts than any other surgeon. At the last meeting of the A. M. A. he mentioned having done 75, with a mortality rate of about 28 per cent; but he said that the 28 per cent was due almost entirely to the poor condition of the patient before operation.

As far as the anesthetic is concerned, I have seen more than one operation on these children at about the age of six weeks, when this condition seems probably to be at its worst, beginning at the first week, and the anesthetic used was ether, and the patients did all right. The operation was just as the doctor did it; just slitting the sphincteric muscle at the pyloric opening, and these babies all recovered.

I think that the doctor is to be highly commended.

"Many great writers besides Cicero and Emerson have written on friendship, but it may be doubted whether any essayist had a more definite idea than a small boy who was recently asked what he meant by 'best friend.' 'My best friend,' he replied, 'is a person who knows me and yet likes me.'"

RADIATION IN THE TREATMENT OF MENORRHAGIA.*

D. A. Rhinehart, M. D., Little Rock.

In spite of many opinions to the contrary, radiation is now an established form of treatment in cases of intractable menorrhagia not due to a malignancy within the uterus. In this statement it is not meant that irregularities in menstruation of mild degree or a menorrhagia that will respond to any kind of non-surgical treatment excepting curetage should be treated with radiation. It is only those cases in which the bleeding is long continued and severe and in which something must be done to preserve and restore the health of the patient that radiation has a place.

The causes of menorrhagia for which radiation is indicated are endometritis of various forms, fibromyomata of the uterus, and a third group in which there is no demonstrable pathology within the uterus and in which the symptoms are believed to be due to ovarian hyperfunction. Menorrhagia from these causes occurs in all ages and in all types of patients.

Menorrhagia from a non-infective endometritis and from ovarian dysfunction in a woman before the age of 35, in which all palliative measures have failed and for the relief of which a hysterectomy would have been performed ten years ago, can be successfully controlled by radiation either from radium or x-ray.

Of the two forms of radiation there is perhaps a slight advantage in favor of radium treatment because of a lessened effect on the ovaries. Following the intra-uterine application of radium in small doses there is usually an amenorrhoea lasting for about a year, after which the menses are re-established in a normal manner. Even if it is necessary to repeat the radiation once or twice to obtain the desired effect, the dosage should be so regulated that a permanent amenorrhoea will not result.

Radiation from x-ray in small applications at rather long intervals will have the same effect. According to Stacey, if there is infection present either in the uterus or adnexa, because of a danger of lighting up the infection radium treatment is contra-indicated.

For these patients x-ray treatment as suggested above is preferable.

In older women those beyond 35 or 38 years of age and particularly those at or in the menopause where there is menorrhagia from endometritis or ovarian dysfunction both x-ray and radium treatment will have the desired results with perhaps the better side of the argument in favor of radiation with x-ray. In x-ray treatment no hospital stay or anesthetic is required, there is little or no interruption in the daily routine of the patient and it is usually less expensive, although somewhat more difficult of administering properly. The only bad effects are a varying degree of loss of appetite, malaise and nausea during the treatments.

The results obtained are strikingly good. Usually these patients have lost a large quantity of blood, their hemoglobin is low, their appetite is poor, there is a marked degree of mental depression and they are compelled to spend a part or all of their time in bed. One, or at most two, series of x-ray treatments stops the hemorrhage, the hemoglobin content of the blood rapidly rises, and the appetite, weight and strength soon return to normal.

Becquerel, the pioneer French roentgenologist, in his latest paper reported 800 cases of fibromyomata of the uterus treated with x-rays. In an earlier report which covered 400 cases, because of bleeding that threatened the life of the patient, operation was necessary in only four.

I do not believe in treating all cases of fibroids of the uterus by radiation. In young women in which there is one or two small subperitoneal or intramural fibroids a myomectomy should be done. This operation relieves the symptoms, preserves the menstrual function, and to a certain degree the child-bearing function also.

In fibroid tumors of large size about four per cent are malignant and the frequency of degeneration and sloughing from infection and other causes is correspondingly increased. With this type of tumor, if the patient is in condition to withstand operation, the tumor should be removed. In pedunculated subserous or submucous fibroids and in case of necrotic, cystic or calcareous degeneration with the patient in good condition, an operation should be performed.

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If, in the above conditions, there is a chance that the patient will not survive operative procedures, radiation is indicated. In 60 per cent radiation will stop the bleeding, relieve the symptoms, and produce distinct shrinking if not disappearance of the tumor.

In case of multiple fibroids in young women requiring hysterectomy for operative relief, and in all cases of small or medium sized fibroids in older women, treatment by radiation is preferable to operation. Ninety-five per cent of these patients may be promised absolute relief.

The chief argument advanced by those opposed to radiation in the treatment of these patients is that a certain percentage of these tumors is malignant. This is true, but in the examination of large numbers of these specimens, malignancy was found in one-half of one per cent, a percentage that is certainly not greater than the primary mortality following operation.

There is yet another class of fibroid, the one that produces no symptoms, in which radiation is indicated to prevent the occurrence of symptoms later.

My personal experience has extended to ninety-three cases with unsuccessful results in but one. On operation the fibroid was found to be complicated by a fibrous mass behind the uterus that contained placental tissue and which could be traced to a ruptured ectopic pregnancy seven years earlier.

In summing up, radiation is preferable to surgery in menorrhagia of severe degree caused by endometritis or ovarian dysfunction in young women, radium being preferable to x-ray if there is no infection present. Radiation therapy is indicated in all small and medium sized fibroid tumors of the uterus in all ages where operative relief would require hysterectomy. Surgery is indicated in young women in case a myomectomy is possible and in fibroids of large size, in those that are pedunculated and in those that have undergone degeneration, provided a successful outcome is reasonably certain.

"Friendship is no respecter of sex; and perhaps it is more rare between the sexes than between two of the same sex."—*Thoreau*.

"The only danger in friendship is that it will end. It is a delicate plant, though a native. The least unworthiness, even if be unknown to one's self, vitiates it."—*Thoreau*.

EXCISION OF THE SENSORY ROOT OR TRI-FACIAL NERVE.*

J. H. Scroggin, M. D., Little Rock.

Before entering into the description or the operative measures for the cure of the tri-facial neuralgia, I would like to say a few words in regard to the diagnosis of the tri-facial nerve. It has a definite point of distribution, viz., to the forehead, nose, teeth, gums, lips and tongue. The attack makes its appearance by pain which may come as a thunderbolt out of a clear sky; and it may make its disappearance as quickly. In the early stages, the attack may last only a few minutes, to recur after weeks or months. The attacks become more frequent as the disease progresses and in some cases, the paroxysms may disappear and the pain become continuous. As a rule, however, but not always, the patient may be comparatively free from pain during the night, thus allowing the patient a good night's rest. The diagnosis of the tri-facial neuralgia is not justifiable when the pain is not referred to the distant area of the tri-geminal nerve. Therefore we should be very careful in the diagnosis and rule out all cases of sinus involvement and abscessed teeth.

Etiology is still a matter of speculation. Heredity has been stated by some to play a part, but we have no definite proof to bear out this theory. We almost invariably find these patients to have sacrificed a great many teeth in the hope of obtaining relief. Some have run the gauntlet of eye, nose and throat specialists and have used practically all the patent remedies on the market for headache without obtaining relief.

Paroxysms may be brought on spontaneously by eating, talking, swallowing, draughts of cold air, sudden noises and the touch of the skin and mucous membrane. In one case that came under my observation, was a negro woman who had not washed her face or combed her hair for five years. She said that the reason for the above was because when she touched her face or hair, it made the pain so severe that she could not stand it. In this case it was amusing to see her run from us when we tried to approach her. It took four men to hold her while the anesthetic was being administered. After the operation, she was

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the happiest woman I ever saw and said that it was the first time in about forty years that she had been free from pains in her face.

As to the radical cure, there are numerous measures that have been employed. However, in this paper I shall not try to describe all of them, but will limit my discussion to the operation of the sensory root.

There are numerous incisions that may be used through the skin as the first step of the operation, viz., from the horse-shoe shape, crescent shape and the oblique incision. Personally, I like the oblique incision as it gives us a better cosmetic effect, in that, after the operation as the hair grows out over the affected side, it will cover up the scar. Most women object very seriously to a scar on or about the face, also some men show a trace of like vanity. The incision that I like is to begin on a line about two and one-half inches above the middle of the ear and bring it downward and forward to the arch of the zygoneure. Then the tri-facial muscle is split down to the zygoneure then freed from its attachment to the zygoneure, for the distance of about one c. m., anterior and posterior. All bleeders are ligated and the skull is exposed, then the periosteum scraped off and a hole is made through the skull with a burrow and then enlarged downward, similar to an operation for a depression; care being taken not to injure the dura.

As to the posture of the patient during the procedure, varies with the different surgeons. Some use the reclining position, others use as near the vertical position as it is possible to place the patient. Personally, I like as near the vertical position as we can get—the dental chair makes a very good operating table. In cases where the blood pressure may fall, the patient may be lowered to the reclining position. The semi-vertical position is valuable in that it helps us in controlling the bleeding and furthermore it enables the surgeon to operate in a very comfortable position.

After the opening has been made in the skull, the dura is separated from the base of the skull by the use of forceps containing a little ball of cotton thus giving us a blunt dissector, also the cotton will keep the wound free from blood. The dura is separated along the floor of the middle ventricle. This must be done very slowly to avoid injury to the middle meningeal artery. When found it is ligated with fine silk and divided at a point

where it enters the dura. Next we see the third division of the nerve where it passes through the foramen ovale. As we elevate the dura in front of it, we see the second division a little behind the third division. The dura is elevated to the upper border of the petrous bone over which passes the sensory root of the fifth nerve. Before the dura is opened the root is not visible, but at a point about midway between the second and third division, the dura is open and the retractor is gradually worked back, thus elevating the brain and carrying the load back toward the apex of the petrous bone. The hook is passed through the opening in the dura over behind the root of the nerve. As to whether the root is excised or evulsed is immaterial as we get the same results from both. However, the excision of the nerve looks neater and, furthermore, we know that we have not injured the brain. The wound is then closed as we would in other ordinary dura operations.

Sequela: Conjunctivitis and keratitis are common following any operation for tri-facial neuralgia; but if properly treated will soon heal, otherwise you will lose the eye.

Mortality after these operations is less than one per cent; whereas, under the more complicated methods, it may run as high as five per cent.

Prognosis is good as to life and comfort, and it is seldom necessary to perform the second operation on the other side.

"I would not be too wise—so very wise—
That I must sneer at simple songs and creeds,
And let the glare of wisdom blind my eyes
To humble people and their humble needs.

I would not care to climb so high, that I,
Could never hear the children at their play,
Could only see the people passing by,
Yet never hear the cheering words they say.

I would not know too much—too much to smile
At trivial errors of the heart and hand,
Nor be too proud to play the friend the while,
And cease to help and know and understand.

I would not care to sit upon a throne
Or build my house upon the mountain top,
Where I must dwell in glory all alone,
Where never friend come in or poor man stop.

God grant that I may live upon the earth,
And face the tasks which every morning brings;
And never lose the glory and the worth
Of humble service and the simple things."

—Dr. T. B. Bradford,
Brinkley, Ark., Dec. 25, 1922.

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Editorials.

THE ANNUAL MEETING.

It is essential to again call the attention of those members who wish to be represented on the scientific program at the annual meeting, to send in their names and subjects. The program committee has no easy task; it must have the co-operation of the members. As has been stated, a larger part of the programs will consist of clinics, wherefore less time will be available for scientific papers. The committee must have the names of all who desire to prepare papers so that they may know just where they stand.

IMPORTANT IF FINALLY SUCCESSFUL.

It is announced by Dr. Simon W. Flexner, director of the Rockefeller Institute for Medical Research, that the influenza germ has been isolated. Dr. Flexner gives the credit to two other scientists of the Institute, namely, Drs. Peter Kolitzsky and Frederiek T. Gates. What remains is, of course, to experiment with antidotes and anti-toxins without which the mere isolation and subsequent culture of the germs would avail little. Should an anti-toxin be discovered, this latest scientific advance would be hailed as one of the greatest boons to mankind since the discovery of the yellow fever-carrying mosquito, and the subsequent elimination of a plague which devastated the South at frequent intervals and flourished unchecked in Cuba and other of the Latin-American countries.

And the envier of the multi-millionaire or the person who condemns hoarded wealth, may realize that even a Rockefeller is of some use and service to mankind.

A HEALTH OFFICER IN THE CABINET.

That a public health department should be established with representation in the cabinet, has been urged by the Journal of the Arkansas Medical Society, from time to time, for several years. The department of agriculture sends out hundreds of thousands of bulletins instructing farmers and stock growers as to the best way to raise pigs and calves, how to treat them for various diseases, how to dip cattle and head off hog cholera, and so forth.

For lo these many years it has been impossible to convince the powers that be in Wash-

ington that how to raise healthy children, how best to conserve human energy by disease prevention, are matters of even greater importance than the raising of healthy pigs and calves and lifting of quarantine against cattle in the tick sections.

Those who read their Bibles will perhaps remember the words that not a sparrow "falls to the ground without your Father" and the comforting assurance which follows, "Fear ye not, therefore; ye are of more value than many sparrows."

But there is financial gain in improving the breed of hogs and cattle. Live stock from uninfected sections brings more in the market than do shipments from infected sections. The money profit in raising more healthy human beings, in preventing disease, in conserving the public health is not directly in evidence. Perchance, in a commercial age and a dollar-worshiping country, this may account for the difficulty experienced in impressing our law-makers with the paramount importance of conserving human energy by prolonging life, by preventing disease and improving the race.

But at last there is reason to hope that soon the proposed new Federal Department of Health, Education and Welfare, with representation in the cabinet, may be an accomplished fact, and thus the United States may rank with the other nations which long ago have taken this step.

An important conference in Washington, January 17, called by Brigadier-General C. E. Sawyer, at which all the elements of the profession from all parts of the country were represented. Dr. Sawyer, the personal representative of the President, said it was the purpose to recommend to the Congress the establishment of such a department with a secretary in the cabinet, the department to consist of four divisions, namely: education, health, social service, and veterans' service. The United States Public Health Service would be transferred to the new department.

Dr. Hubert Work, Postmaster General and formerly president of the American Medical Association, spoke at the conference and outlined a program under which the whole national health and education movements could be co-ordinated. From Washington there would be control of maritime quarantine to keep out epidemic diseases; interstate quarantine to prevent the spread of diseases from

State to State along lines of travel and to investigate in laboratories of the federal bureaus all matters pertaining to public and private health. Nowhere would there be conflict with the authority of State medical and public health bodies; but the government department would always be ready to co-operate with such bodies.

The success of this movement will, to a large extent, depend upon the support given it by the various medical societies throughout the country and by the secular press which always has willingly given space to any movement for the general welfare of the people.

It really is time that civilized America should recognize the fact that the public health is of paramount importance, that it is of greater importance than the health of the lower animals and that in the last analysis even selfish reasons may be adduced because the wealth of the country is in its man power, its human energy and the more human energy is conserved the greater and stronger will be the country.

Personal and News Items.

Dr. E. Meek of Little Rock is spending the winter in St. Petersburg, Florida.

The Stout Hospital at Brinkley was formally opened January 18, 1923.

The St. Vincent's Hospital, Little Rock, has installed a modern deep therapy machine for the treatment of deep-seated malignancies.

Dr. G. W. Reagan, of Berryville, has moved to Little Rock and will have office in the Donaghey Building.

Professor William Konrad Roentgen, discoverer of the X-Ray, is dead at Munich, Germany.

INVITATION.

All those interested are cordially invited to be present at the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, March 5, 6 and 7, 1923. Florentine Room, Congress Hotel, Chicago.

A doctor who does not read medical journals and attend his county society meetings may "get by," but he would be a whole lot more skillful if he'd keep up with what other doctors are doing.

Dr. John G. Cullins, formerly of Fort Roots Hospital, North Little Rock, who has recently completed a post course in the Psychopathic Hospital, Boston, an adjunct of Harvard University, has been assigned to duty in the Veterans' Bureau, New York City.

Other Removals: Geo. H. Joost, Little Rock to DeKalb, Ill.; C. B. May, Gurdon to Little Rock; J. A. Summers, Conway to North Little Rock; C. B. Capel, Grapevine to Sheridan; O. W. Hope, Fordyce to Carthage; N. H. Grady, Monette to Hot Springs; W. S. Ellis, Holly Springs to Hermitage.

The Davis Hospital at Pine Bluff recently became a standardized hospital according to the requirements of the American College of Surgeons. Although there have been no radical changes at the hospital, under the new system it is better equipped to care for the cases which come to it.

In accordance with the requirements of the minimum standard, as outlined by the American College of Surgeons, the directors of the hospital at their last meeting appointed the hospital staff, headed by B. D. Luck as chairman and surgeon; W. T. Lowe, gynecology; J. F. Crump, eye, ear, nose and throat; W. G. Pittman, laboratory; J. T. Palmer, obstetrics; C. K. Caruthers, anesthesia; E. C. McMullen, internal medicine, and J. S. Jenkins, orthopedics.

ANNOUNCEMENT.

The Seventh Annual Clinical Session of the American Congress on Internal Medicine will be held in the amphitheatres, wards and laboratories of the various institutions concerned with medical teaching, at Philadelphia, Pa., beginning Monday, April 2, 1923.

Practitioners and laboratory workers interested in the progress of scientific, clinical and research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General, Frank Smithies, 1002 North Dearborn Street, Chicago, Ill.

Sidney R. Miller, President,
Baltimore, Md.

Dr. J. B. Crawford, of Benton, has decided to specialize in diseases of the eye, ear, nose

and throat. He will take a post-graduate course at New Orleans, supplementing with a course in New York, after which he will be associated with his brother, Dr. S. R. Crawford, in the Donaghey Building, Little Rock.

WELL-KNOWN LITTLE ROCK SURGEON BECOMES A BENEDICT

Dr. Carle E. Bentley and Mrs. Katherine Oakman Are Married at Home of the Bride.

Dr. Carle E. Bentley, well-known Little Rock surgeon, and Mrs. Katherine Oakman, daughter of Mrs. Charles Heitman, 2114 West Eleventh Street, were married at 2:30 o'clock February 10.

The ceremony was performed at the home of the bride in the presence of only a few friends and relatives.

Following the ceremony the couple left for a wedding trip to Chicago.

The Journal tenders congratulations and wishes them both many years of marital felicity.

"To the man who insists on lowering the medical standards of today, bear this message: 'It requires years of persistent, patient toil to rear the sturdy oak tree, a tree that can withstand the storms and caprices of the weather; but a pumpkin can be matured in three months.' It takes time to develop the mind to that point of stability where it can act with accuracy when the storm-tossed love of zealous friends are clutching frantically at every ray of hope that offers the slightest promise of evading death. To lower the entrance requirements and bring down the standard of American medical schools would be as much of an insult to coming generations as it would have been to have lowered the Stars and Stripes of America to the imperial power that sought its annihilation."—*Eiker, Journal of Iowa State Medical Society.*

A. M. A. IN CALIFORNIA.

California invites you to attend the American Medical Association Convention in San Francisco June 25-29, 1923. You are also invited with your family and friends to attend the California State Medical Association meeting in the same city the Friday and Saturday before the American Medical Asso-

ciation holds its convention. Some five or six other national and district medical associations will meet in San Francisco between June 21st and June 30th. These include the American Society of Tropical Medicine, the Radiological Society of America, the American Radium Society and a number of others.

Members of the Arkansas Medical Association, in particular, are urged to attend the convention and to spend their vacation in California. Through contacts with various financial, civic, tourist and automobile agencies, we are prepared upon request to assist you in planning your trip, in making you comfortable while at the convention, in arranging side trips of any length or character, and in any other way acting as your host while in our State.

We are now making arrangements for a number of automobile caravans from eastern points to San Francisco. From early information it seems that this is going to be a popular method of crossing the continent. If you and your friends desire to come by automobile, communicate with us and we will assist you from the moment you leave home until you get back. If you plan to come in any other way, write to us and we will be glad to help you with your arrangements. You are requested to write to Dr. W. E. Musgrave, 806 Balboa Building, San Francisco, or about vacation opportunities anywhere in California.

INCOME TAX FACTS.

The revenue act of 1921 provides that an income tax return shall be filed by every person, married or single, whose gross income for the year 1922 was \$5,000.00 or more. Broadly speaking, gross income includes all income received by the taxpayer during the year from salary or wages, or from "business, trade, profession or vocation," dealing in property, or the transaction of any business carried on for profit. Net income, upon which the tax is assessed, is gross income less certain specified deductions for business expenses, losses, bad debts, taxes, contributions, etc.

Among the most important items in the returns of many taxpayers are the deductions for business expenses. In the case of a storekeeper, they include a reasonable allowance for salaries paid employees, amounts spent for advertising, premiums for insurance against fire or other business losses, the cost

of water, light, heat and fuel used in his place of business, drayage and freight bills.

A professional man, doctor or lawyer, may claim as deductions the cost of supplies used in the practice of his profession, expenses paid in the operation and repair of an automobile used in making professional calls, dues to professional societies, subscriptions to professional journals, office rent, and the cost of fuel, light, heat and water used in his office, and the hire of assistants.

The farmer may deduct all amounts paid in the production, harvesting and marketing of crops, including labor, cost of seed and fertilizer purchased, cost of minor repairs to farm buildings (other than the dwelling, which is personal expense) and cost of small tools used up in the course of a year or two. Rent paid for a farm also is an allowable deduction.

Deduction of personal or living expenses such as rent paid for a dwelling, hire of domestic servants, education of children, etc., is expressly disallowed by the revenue act.

Abstracts.

THE SIGNIFICANCE OF LYMPHATIC INVOLVEMENT IN INFECTIONS.

Particular attention is directed by William J. Mayo, Rochester, Minn. (Journal A. M. A., Jan. 27, 1923), to the fact that not all enlarged glands associated with cancer, especially in septic situations, such as the gastrointestinal tract, are due to cancer. The glands may enlarge if a benign lesion, such as a chronic ulcer, precedes the cancerous change. Chronic sepsis involving the glands is not infrequent; the glands may become so extremely hard as to appear malignant. This condition is quite constant in cancer of the large intestine. Postmortems show that half the patients who die from cancer of the colon have no cancerous involvement of the lymphatic glands at the time of death, although the glands may be greatly enlarged from sepsis. I mention this because I have operated on many patients whose condition following exploration has been pronounced inoperable on account of glandular involvement, and I have been able to resect and definitely to show that the glands were septic, not cancerous. These patients have remained well for long periods. Microscopic examination of the glands will be necessary in many cases to decide the question.

THE DISAPPOINTMENTS OF HEXAMETHYLENAMIN.

Hexamethylenamin has joined the large and growing group of drugs of which much has been expected, but which have failed to justify the hopes of their champions. The use to which hexamethylenamin is still devoted with apparent scientific justification is in preventing the growth of micro-organisms in the urinary tract and in destroying them when they are present in the urine in infectious diseases, such as typhoid fever. The drug is recommended as an antiseptic in cystitis and as a prophylactic prior to operations on the urinary tract.

Its possible efficacy, however, depends on the elimination through the kidneys with a urine that remains distinctly acid in reaction; otherwise, no benefit is to be expected. Hexamethylenamin has no material antiseptic value as an antiseptic in the cerebrospinal fluid during spinal meningitis. It is not a uric acid solvent. Finally, the drug has been shown to have no diuretic potency. Furthermore, hexamethylenamin is said to be liable to produce renal irritation when the dosage is large or the use protracted.—(*Journal A. M. A.*, Jan. 6, 1923, p. 37.)

THE BLOOD PRESSURE OF HEALTHY MEN AND WOMEN.

This study, reported by Brandreth Symonds, New York (*Journal A. M. A.*, Jan. 27, 1923), is based on the record of risks accepted at standard rates by the Mutual Life Insurance Company of New York for the years 1907 to 1919, inclusive. In connection with the use of a numerical rating, as is the practice of the New York Life Insurance Company, which charges an excess premium for a systolic pressure of 140 mm. in the ages below 40, a question arises whether any systolic pressure above 140 mm. should not be suspected of pathologic possibilities. The mortality ratios do not definitely prove this, but, for pressures above 145 mm., they indicate it strongly. Pressures below 100 mm. are rare in life insurance. They will usually be found in the very young and thin, and life insurance has shown that the applicant presenting the combination of youth, thinness and a pressure below 100 is prone to tuberculosis. To some extent this holds true also for those having a pressure below 110. Among those who are not young, these low pressures

do not seem to be associated with increased mortality. In fact, the mortality ratios indicate that low pressure after the age of 45 is desirable. This is of great interest, for the average systolic pressure begins to increase decidedly at that age. It would seem that the average pressure runs counter to the best interests of health. In that respect, it resembles weight; for the average weight increases with age, while the lowest mortality after the age of 45 is found among those who are 15 per cent lighter than the average weight. The systolic pressures of healthy women are a little lower than man's up to the age of 40, partly for the reason that women weigh less up to this age. After that, they are a little higher than man's, and they behave like man's with reference to pressures over 140 mm. The diastolic pressures of healthy men increase with weight and age in about the same proportion as the systolic pressure. It is possible that a diastolic pressure above 94 mm. is in the danger zone. The diastolic pressures of healthy women are a trifle lower than man's up to the age of 40, and a trifle higher after the age of 50.

County Societies.

JEFFERSON COUNTY.

(Reported by J. T. Palmer, Sec.)

On December 5, 1922, Jefferson County Medical Society elected the following officers for 1923: J. M. Lemons, president; W. T. Lowe, vice-president; J. T. Palmer, secretary-treasurer; Wm. Breathwit, delegate to State convention; J. F. Gill, alternate; board of censors, Lowe, Luck and Glover.

At the regular monthly meeting February 6, 1923, of the Jefferson County Medical Society President J. M. Lemons presided. Present: Troupe, John, Gill, Woodul, Vines, Pittman, Lemons, McMullen, and Palmer. Wm. Breathwit, who was to have read a paper on Diphtheria, was unavoidably detained. Many interesting clinical cases reported.

Adjourned.

WHITE COUNTY.

(Reported by Sam. J. Allbright, Sec.)

The White County Medical Society met in Searcy January 4, 1923, at 2:30 p. m.

Present: Members Havner, Jelks, Jones, Moore, Hassell, Harrison, Tapscott, Brewer, Little, Purnell, Runyan, Gray and Allbright.

Visiting doctors: H. C. Jones, Cresswell and T. G. Burge.

Dr. T. G. Burge notified the society he had asked for transfer from Independence County society and was received as a member of White County society.

A paper on "Diagnosis of Pneumonia," by Dr. Havner and one on "Treatment of Pneumonia," by Dr. Hassell, were read and discussed.

Officers were elected for 1923: R. L. Little, president; J. B. Havner, vice-president; S. J. Albright, secretary-treasurer; J. M. Jelks, delegate to the State society.

Adjourned to meet at Searcy April 5th, at 2:00 p. m.

NEVADA COUNTY.

(Reported by Ottis G. Hirst, Sec.)

The Nevada County Medical Society met in regular monthly session at the Bratton Hotel at 7:00 o'clock p. m., February 5th.

The president, vice-president and secretary being absent the meeting was called to order by Dr. W. W. Rice. Members present: Kennedy, Hudson, Rice, Chastain, G. A. Buchanan, S. J. Hesterly, and J. H. Stidham. The following visiting physicians were present: Don Smith, Hope; R. H. T. Mann, Texarkana; J. E. Gentry, McCaskill; and Arthur F. Barr, Prescott. Dr. Barr has just recently moved here.

The scientific session was preceded by a plate dinner which was very much enjoyed.

The society was extremely glad to have as guests Dr. Mann and Dr. Don Smith, who both read papers. The subject of Dr. Mann's paper was "Medicine in Transition," and of Dr. Smith's "Infant Feeding." They were both very interesting and instructive and were fully discussed by all present.

M. H. Kennedy, D. D. S., read a paper on "Exodontia."

J. S. Chastain, M. D., read a paper on "Do We Practice Rational Medicine or Empiricism?" They were both very interesting and freely discussed.

Next meeting first Monday night in March.

FRANKLIN COUNTY.

(Reported by Dr. Thos. Douglass, Sec.)

The Franklin County Medical Society held its annual meeting December 12, 1922, at Ozark. Dinner was served at the Bristow

Hotel. Mrs. Bristow always tries to see how many goods things to eat she can put on the table, and this time she succeeded most admirably. We had watermelon as the final course. There were present Drs. Annie Hayes, Earl Hunt, and Hargraves of Clarksville, and Drs. Grant and Wigley of Mulberry as guests. Members present: Drs. Porter, Blackburn, Higgins, Crocker, and Douglass. Dr. Allen came in after dinner. As we had to have a Republican postmaster at Ozark in the near future the wisdom of the Republican administration in selecting the president of this society, Dr. A. J. Hansberry, was commended. Dr. Hansberry remarked that there was many a slip betwixt the cup and the lip, that a Democrat sometimes died, but he never resigned!

After dinner we discussed "Professional Ethics," led by Dr. Porter, who refuted the calumnious charge that he knew nothing about the subject.

On January 9, 1923, the society held its regular meeting. Present: Allen, Hansberry, Davis, Williams, Horner and Porter. Dr. Porter was appointed secretary pro tem. Dr. Chas. S. Allen was elected president, Dr. H. F. Williams vice-president, and Dr. Thos. Douglass re-elected secretary and treasurer for 1923.

CHICOT COUNTY.

(Reported by J. S. Wilson, Sec.)

The Chicot County Medical Society met in regular monthly session on Thursday, January 11, 1923. The scientific program for this meeting consisted of a paper by Dr. E. Baker of Dermott on the important subject of "The Doctor."

This society has met on the second Thursday of each month for the last year and we have always had good papers by the different members of the society, which have broadened us professionally, fraternally and ethically. In fact, if there is an unethical doctor who is a member of this society no one knows it or ever hears it spoken of. The paper which we were favored with by Dr. Baker at this meeting was voted by all present as the best paper we had had during the year. It very clearly showed the doctor his greatest shortcomings, what his weaknesses are, financially and otherwise, and demonstrated clearly how shrewd persons play one doctor off against another when it is decided it is cheaper to

changed doctors than to settle with the one who has carried them as long as he can or will.

After the scientific program the election of officers resulted in the re-election of Dr. S. W. Douglas of Eudora, president; Dr. E. E. Barlow of Dermott, vice-president; and Dr. J. S. Wilson, Lake Village, secretary.

It is our purpose to meet monthly in the future and have a good program at each meeting, and in May or June we expect to have our annual fish fry meeting to which the State secretary and his friends are invited.

Obituary.

DR. ZAPHNEY ORTO.—Zaphney Orto, M. D., of Pine Bluff, aged 81, died January 22, 1923. Dr. Orto formerly active in the practice of medicine held many official positions in his local and State societies. For the past ten years he devoted his time exclusively to banking business. He was a native of Tennessee, but had lived in Arkansas since 1860.

DR. A. N. WOOD.—A. Neal Wood, M. D., of Ashdown, aged 57, died December 15, 1922. Dr. Wood was a graduate of the University of Arkansas, School of Medicine, Class of 1890, and was licensed to practice in Arkansas under the revised registration law of 1903.

Book Reviews.

1921 Collected Papers of the Mayo Clinic.—Rochester, Minn. Octavo of 1318 pages, 392 illustrations. Philadelphia and London. W. B. Saunders Company, 1922. Cloth, \$12.00 net.

The contents of this volume comprise articles on the alimentary tract; urogenital organs; ductless glands; blood; skin and syphilis; head, trunk and extremities; brain, spinal cord, and nerves; technic, and general topics.

Abdominal Pain.—By Prof. Dr. Norbert Ortner, Vienna. Translated by William A. Brams and Dr. Alfred P. Luger. Published by Rebman Company, Herald Square Building, New York.

This work is based upon the wide personal experience of one of the principal figures in the school it represents, and most of the diag-

nosis it contains have been carefully verified by surgical and anatomical procedure.

I Believe in God and in Evolution.—By William W. Keen, M. D., Philadelphia. Published by J. B. Lippincott Company, Philadelphia. Price, \$1.00.

In this book Dr. Keen shows how undeniable is the truth of man's relationship with the lower animals, yet in the end how closely linked are the tenets of Christianity with those of Evolution. He gives the distinction between Darwinism and Evolution, and that they are wholly independent of each other.

Applied Chemistry.—An Elementary Text-book for Secondary Schools. By Fredus N. Peters, Ph.D., Los Angeles, California. Illustrated. Published by C. V. Mosby Company, St. Louis. Price, \$3.50.

For twenty-three years the author of this book was instructor in Chemistry in the Central High School, Kansas City, Mo., one of the great high schools of the Middle West.

There is a list of questions following each chapter described as "Exercises for Review." The book closes with tables for reference and glossary.

Symptoms of Visceral Disease.—A study of the vegetative system in its relationship to clinical medicine. By Francis Marion Pottenger, A. M., M. D., Monrovia, California. Second edition. With 86 text illustrations and 10 color plates. Published by C. V. Mosby Company, St. Louis, 1922. Price, \$5.50.

In this book the author gives in terms of visceral neurology, symptoms which are found in the every-day clinical observation of visceral disease. As he says, "It is an attempt to show how pathological changes in one organ affect other organs and the organism as a whole, through the medium of the visceral nerves."

Diseases of the Thyroid Gland.—By Arthur E. Hertzler, M. D., F. A. C. S., Kansas City, Kansas. Professor of Surgery in the University of Kansas School of Medicine. With a chapter on Hospital Management of Goiter Patients, by Victor E. Chesky, A. B., M. D. One hundred six original illustrations. Published by C. V. Mosby Co., St. Louis. 1922. Price, \$5.00.

This book contains very valuable material pertaining to the etiology and pathogenesis of goiter; normal and pathological anatomy of the thyroid gland; symptomatology, diagnosis and prognosis in disease of the thyroid; goiters in unusual places; hospital management of goiter patients (by Dr. Chesky); treatment of diseases of the thyroid gland; topographic

anatomy of the thyroid gland, and technic of operations on the thyroid gland.

The Management of the Sick Infant.—By Langley Porter, M. D., and William E. Carter, M. D. Illustrated. Published by C. V. Mosby Company, St. Louis. Price, \$7.50.

The first part of this book describes vomiting, diarrhea, constipation, nutrition, hemorrhage, pain and tenderness, convulsions and syncope, fever and cough.

Part II—Diseases of the respiratory tract, digestive tract, heart and circulation, blood and lymphatic, nervous system, skin diseases, genito-urinary, diseases of the osseous system, internal secretions and infectious diseases.

Part III—Methods, formulas and recipes and drugs. The last chapter refers to cases where the physician is called upon to prescribe for children who have, or are supposed to have taken poison.

“I rather choose to use the word friendship than love, because in the general sense that word (love) is spoke, it signifies a passion rather founded on fancy than reason; and when I say friendship, I mean a mixture of tenderness and esteem, and which a long acquaintance increases, not decays.”—*Lady Mary Wortley Montagu.*

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The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

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1923

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FRACTIONAL GASTRIC ANALYSIS.*

W. D. Rose, M. D., Little Rock.

The object of this paper is to point out certain of the advantages of fractional analysis of the gastric content over the older one-hour method of examination. The technic involved in this analysis is extremely simple, and can readily be carried out by the physician in his every-day work.

Fractional gastric analysis differs from the one-hour examination of the stomach contents in that instead of aspirating the entire contents at a definite period, small portions of the stomach contents are removed and examined at fixed intervals throughout the digestive phase. In this manner a continuous record is obtained of the functional capacity of the stomach as to secretion and motility which is not to be obtained by the former methods of gastric analysis; and the precise duration of the digestive phase and the commencement of the interdigestive phase are readily determined.

Unfortunately, results from fractional gastric analysis have not been as uniform as could be desired, principally because there has been no definitely established technic employed universally in the work. In the hands of different workers a variety of test meals have been used, and the specimens for examination have been removed at different intervals of time.

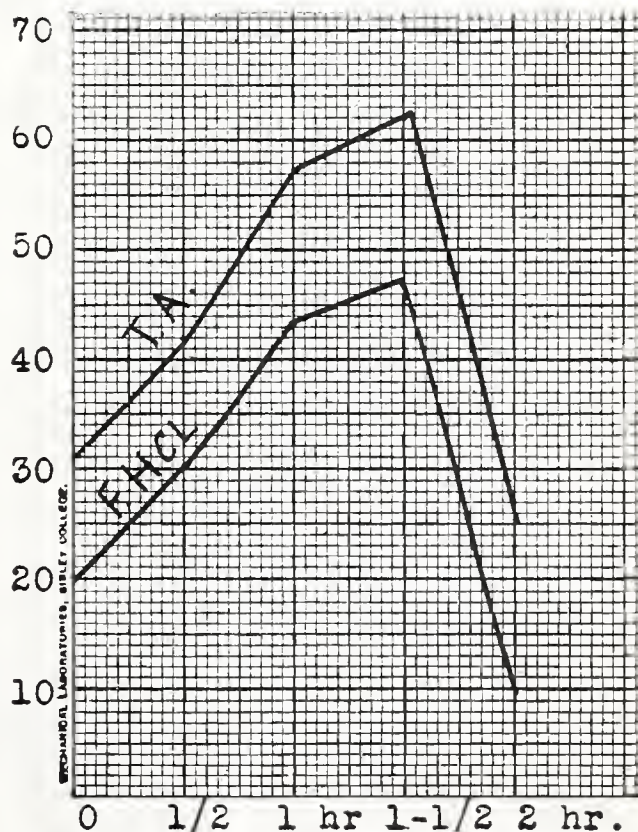
The following simple technic we have employed during the past year with perfect satisfaction. The night previous to the examination the patient is required to take twelve seeded raisins with his supper and to report to the office after a twelve-hour fasting period.

*Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

A duodenal tube is passed into the stomach and the contents of the fasting stomach removed. Fragments of raisin skins or food remnants at this time are indicative of food stasis.

The quantity of fluid which may be aspirated from the fasting stomach varies from 30 c. c. to 50 c. c., and a fasting content of 70 c. c. is interpreted as evidence of impaired motility. In our cases we have usually recovered 15 c. c. to 40 c. c. of fluid from the fasting stomach; and, in a case of chronic gastrectasis, 350 c. c. of fluid were aspirated.

The examination of the fasting contents constitutes a very important part of frac-



Type I. Fasting contents, 36 c. c. Colorless. Negative for lactic acid. Microscopical: Flat epithelial cells, occasional leukocyte, occasional long bacillus.

Ewald Meal. Total recovered, 70 c. c. Clean digestion. Lactic acid negative. Pepsin present. Starch digestion good. Microscopic negative.

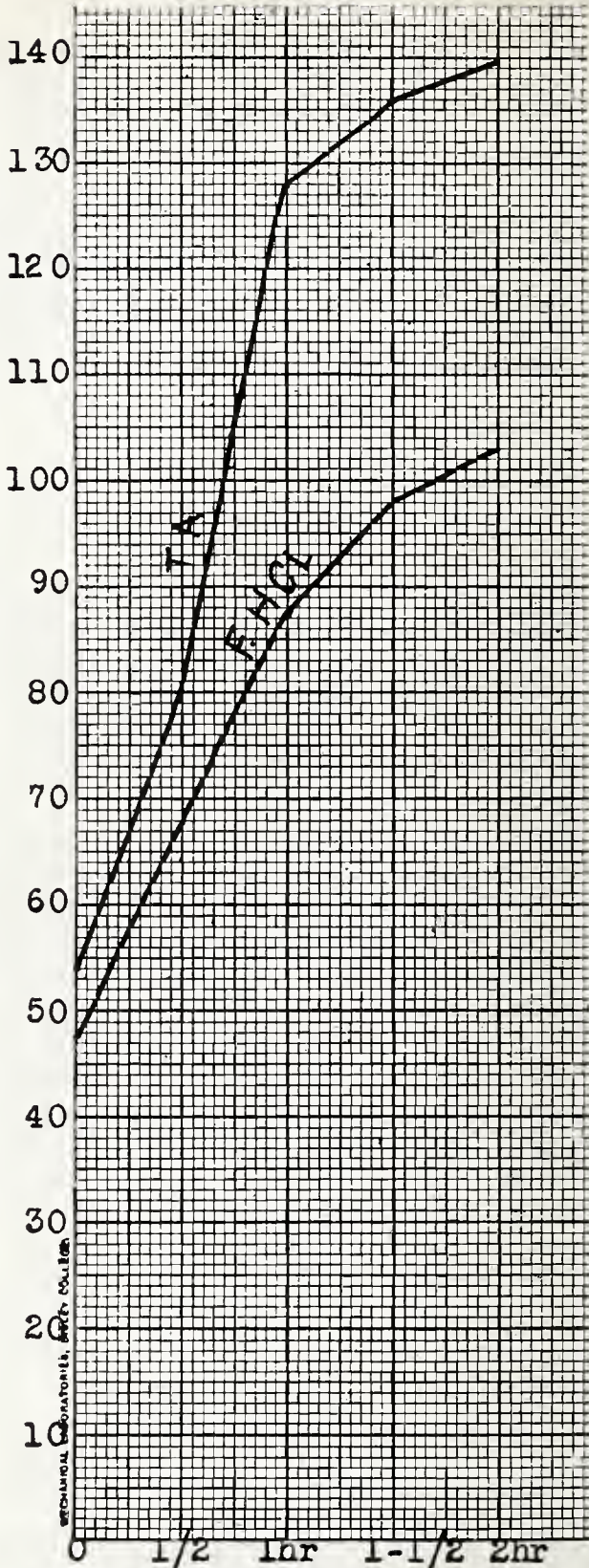
tional gastric analysis. The total acidity of the fasting contents in the normal subject approximates 30, while the free hydrochloric acid approximates 18, in terms of decinormal sodium hydroxide required to neutralize 100 c. c. of gastric contents. In cases of reflex hypersecretion, however, as well as in the presence of duodenal ulcer, and in the cases classified under the head of hyperacidity with clean digestion by Rehfuß, occurring in inflammatory disease of the appendix, much higher figures are obtained. In the presence of cholecystitis, on the contrary, as well as in certain cases of anacid gastritis and gastric carcinoma, the fasting content frequently presents a picture of achylia, an achylia which in the presence of cholecystitis frequently gives place to a hyperacidity within two hours after the ingestion of the Ewald test meal.

The presence of bile in the fasting content is at least suggestive of gall-bladder disease. Lyon is convinced from his studies that bile is only discharged into the small intestine in response to the stimulus of taking food; and that, even if it were present in the duodenum, it could not make its way into the stomach in the fasting state except through reversed peristalsis of the duodenum, a condition usually obtaining in the presence of inflammatory adhesions between the duodenum and the gall-bladder. It is conceivable that such adhesions might arise as a result of duodenal ulcer; but under these circumstances blood would very likely be demonstrable in the fasting content.

In addition to the chemical examination, the contents of the fasting stomach should receive careful microscopical examination. During this examination blood from the gastric or duodenal ulcer may be recognized, pus cells and bacteria with numerous desquamated epithelial cells in infected gastritis or carcinoma, or merely numerous epithelial cells and mucous in simple chronic gastritis.

Occasionally in the normal subject the fasting content will show a trace of lactic acid. As we make a test for lactic acid as a routine after the ingestion of the Ewald meal, the stomach is washed thoroughly before the administration of this meal to avoid this possibly confusing finding during the subsequent examination.

In the endeavor to standardize fractional gastric analysis, Rehfuß recommended the use of the Ewald test breakfast of one slice of toast and 250 c. c. of water, which is the



Type II. Fasting contents, 40 c. c. Colorless. Negative for lactic acid. Microscopical: Numerous flat epithelial cells; occasional leukocyte.

Ewald Meal: Total recovered, 85 c. c. Clean digestion. Lactic acid negative. Pepsin present. Starch digestion poor. Microscopical: Numerous unsplit starch granules. Few flat epithelial cells. Two hour residue, 25 c. c.

Diagnosis: Chronic appendicitis.

meal that we have employed. Certain workers have introduced a fluid test meal through the stomach tube, a procedure which saves the patient the inconvenience of again introducing

ing the tube, but which does away with salivary digestion in the stomach. As we make a routine test of salivary digestion during our examination, we have the test meal taken by mouth, and make a second introduction of the duodenal tube.

In the hands of different workers the contents have been aspirated at different time intervals, the object in all examinations being to obtain a continuous picture of the secretory capacity of the stomach during the digestive phase, and to determine accurately the duration of this phase. In the hands of certain workers, the first aspiration has been performed thirty minutes after the ingestion of the test meal, and subsequent aspirations at intervals of fifteen minutes; while in the hands of other workers the first specimen has been removed forty-five minutes after the ingestion of the test meal and subsequent aspirations performed at 20-minute intervals during the two-hour period. In our work we have made our first aspiration thirty minutes after the ingestion of the test breakfast and subsequent aspirations at 30-minute intervals during the two-hour period, at the completion of which time the Ewald meal should be in large part evacuated from the stomach.

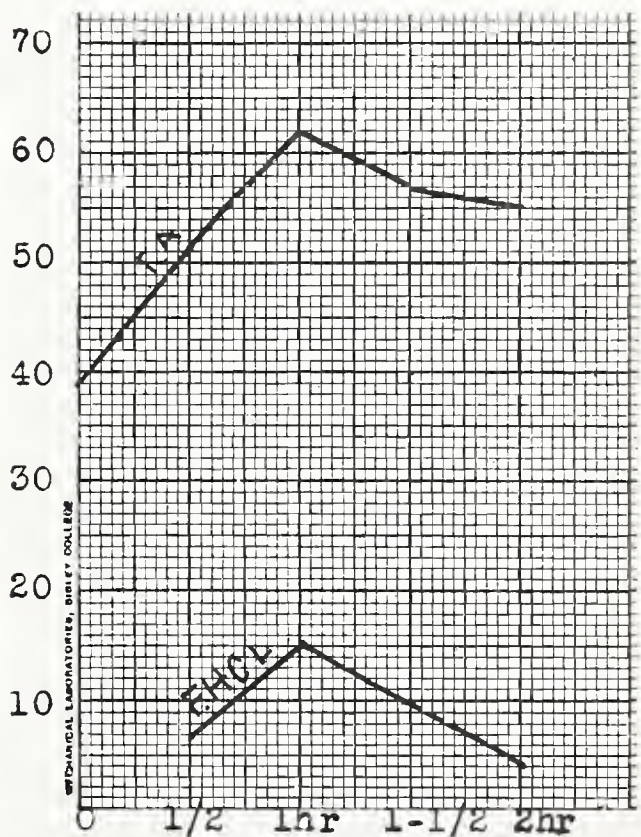
The specimens removed are examined for the degree of total acidity and free hydrochloric acid, and the unfiltered contents examined microscopically. By erecting curves upon ruled paper, a graphic record of the secretory function of the stomach is obtained for the entire digestive period.

With certain limitations, practically every fractional analysis will yield one of five more or less definite acid curves. In the interpretation of these curves, particular attention is devoted to the degree of acidity of the fasting content, the time at which the acid curve reaches its maximum height, and the relation of the free acid to the total acidity. It is true that many minor variations in these curves are presented by different cases; but in the main the curves obtained conform fairly closely with the five types of curve to be described. Many of these variations are due to a psychic disturbance in secretion, arising as a result of the first experience of the patient with the stomach tube. Frequently when the first curve obtained is atypical, a re-examination after an interval of a few

days will yield a curve corresponding to one of the five curves to be described.

In the normal curve, from a fasting acidity of approximately 30, the curve ascends and attains its maximum height in one to one and a half hours. Subsequent to this time the curve gradually descends toward the base line. The curve representing total acidity usually attains a height of 60, though slight variations above and below this figure are noted; and the curve representing free hydrochloric acid pursues a course approximately 20 points below the curve for total acidity.

In the second type of curve the fasting acidity is uniformly high. Following the ingestion of the test breakfast there is frequently a moderate drop in the acidity during the first half hour, which is followed by a continuous rise in both acid curves to the completion of the digestive phase. But frequently the primary drop in acidity is not demonstrable, the acid figures ascending from the ingestion of the test meal. The height of



Type III. Fasting contents, 25 c. c. Colorless, containing much mucus. Lactic acid negative. Microscopical: Numerous flat epithelial and caudate epithelial cells. Occasional leukocyte. Occasional long bacillus.

Ewald Meal. Total recovered, 80 c. c. Considerable mucus intimately mixed with contents. Lactic acid negative. Pepsin present. Starch digestion good. Microscopical: Mucus, numerous flat epithelial cells. Occasional leukocyte.

Diagnosis: Subacute gastritis.

the total acidity curve is apt to approximate 100 or to go considerably above this figure at the end of the two-hour period. The free hydrochloric curve follows the total acidity curve closely, and toward the end of digestion the two curves tend to approximate one another. Frequently, again, the acid curves reach their maximum height during the first hour, and thereafter present a horizontal course in the neighborhood of 100 or above this figure. This curve, which is usually attended with the microscopic picture which will be classified as clean digestion, is symptomatic of inflammation of the appendix or gall-bladder, and is noted in the presence of duodenal and recent gastric ulcer.

In the third type of curve there is a fasting acidity of 30 to 40, but the fasting content usually shows an absence of free hydrochloric acid. Following the ingestion of the test meal the curve for total acidity usually ascends to the neighborhood of 60 within an hour or an hour and a half. In other words, the curve representing total acidity runs approximately a normal course. But free hydrochloric acid is late in making its appearance; and its figure is uniformly low, always occupying a position more than 20 points below the curve of total acidity. This type of curve, which is commonly attended by the presence of gastric mucus in the content, is characteristic of the gastritis group, or is due to partial suppression of gastric secretion as a result of focal infections. This curve is very similar to the psychic suppression of secretion which frequently attends the first fractional analysis of a patient; and in all cases in which it is obtained, it is advisable to make a second analysis later.

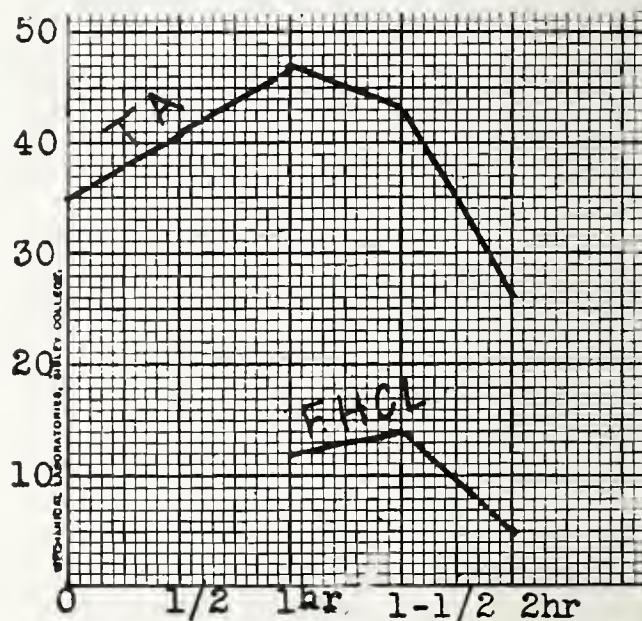
In the fourth type of curve the total acid curve pursues a course uniformly below 60 throughout the digestive phase, and free hydrochloric is very late in making its appearance. In this group of cases free acid may be alternately present and absent at different stages of digestion. This curve attends chronic gastritis and suppression of gastric secretion during the course of anemia, pulmonary tuberculosis, or other chronic wasting diseases.

In the fifth type of curve the line representing total acidity pursues practically a horizontal course, rarely rising above ten points, and free hydrochloric acid is absent throughout the digestive phase. This type represents a true achylia, and is noted in cases

of gastric carcinoma, and occasionally in malignant disease of other viscera.

Fractional analysis, in addition to reflecting continuously the secretory activity of the stomach, yields valuable information as to gastric motility. As a rule, at the end of two hours it is difficult to secure an adequate specimen for examination; but in the case of delayed motility with hypersecretion, there may be a residue approaching 100 c. c. or more, which may be aspirated. In the presence of hypermotility, on the contrary, the contents may be evacuated in periods varying from thirty-five minutes to an hour and a half.

In interpreting the motility of the stomach, we should bear in mind that Rehfuess has demonstrated upon a large number of cases that there are normally rapid and slow stomachs in so far as motility is concerned; but in these cases there is no secretory disturbance. The same may be said of disturbances in gastric motility which have been attributed to gastric neuroses. But we also encounter premature evacuation of the gastric contents in the presence of subacidity and achylia of organic origin, occasionally with duodenal ulcer, and when a scirrhus carcinoma has converted the



Type IV. Fasting contents, 30 c. c. Colorless, containing much mucus. Lactic acid negative. Microscopical: Numerous epithelial cells, occasional leukocyte, numerous short bacilli, freely motile.

Ewald Meal. Total recovered, 68 c. c. Poorly digested, with much mucus. Lactic acid negative. Pepsin present. Starch digestion good. Two hour residue 10 c. c. Microscopical: Numerous epithelial cells, occasional leukocyte, few short bacilli.

Diagnosis: Chronic gastritis, in subject of chronic ulcerative phthisis.

pyloric portion of the stomach into a so-called "funnel pylorus." Delayed emptying of the stomach, on the contrary, is noted in gastric atony, hypertrophic stenosis of the pylorus or benign or malignant tumor of the pylorus, as well as pyloric ulcer, when the pylorus is constricted by adhesive bands, and in the presence of carcinoma of the head of the pancreas.

It is our practice to make two microscopical examinations of the stomach contents during the digestive phase: one at the end of the first hour, and the other during the second hour, when duodenal regurgitation is apt to be in progress. In interpreting the findings upon microscopical examination, we follow the classification of Rehfuess, which seems to be eminently scientific and practical. In this wise all cases fall into four classes, as follows:

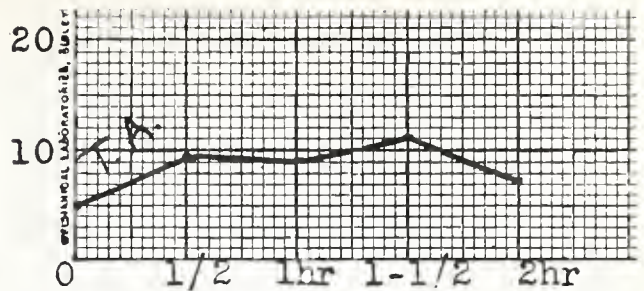
1. Secretory variations plus clean digestion. In this group the microscope shows clean digestion of the test meal, the hypo- or hyper-acidity occurring reflexly as a result of disease of the appendix, gall-bladder, adhesions, anemia, disease of the thyroid gland or metabolic diseases.

2. Secretory variations plus gastric mucus. In this group the content is intimately mixed with mucus of gastric origin, indicating acute or chronic gastritis of dietetic or other origin.

3. Secretory variations plus blood. This group includes gastric erosions, gastric or duodenal ulcer, carcinoma or gumma of the stomach. It is to detect cases belonging to this group that we do the second microscopical examination during the second hour, the period of duodenal regurgitation, when blood may be indicative of duodenal ulcer.

4. Secretory variations plus blood, pus, mucus, and bacteria, occurring in ulceration, inflammation, and infection of the stomach. Rehfuess finds this group of cases to include but three conditions, namely, infected gastritis, gastric carcinoma and gastric syphilis.

In every case a test for lactic acid should be made upon the fasting content and again toward the end of the digestive phase. It is true that the presence of lactic acid in the content is not pathognomonic of gastric carcinoma; that a certain small percentage of lactic acid is elaborated during the digestion of the Ewald meal; but this formation of



Type V. Fasting contents 80 c. c. Light brown fluid of foul odor. Lactic acid positive. Microscopical: Numerous epithelial cells, numerous red blood cells, numerous leukocytes, numerous long bacilli.

Ewald Meal. Total recovered, 105 c. c. Poor digestion, with mucus. Lactic acid positive. Pepsin absent. Starch digestion good. Microscopical: Numerous epithelial cells, numerous red blood cells, numerous leukocytes, numerous short bacilli, occasional long bacillus. Two hour residue, 85 c. c.

Diagnosis: Carcinoma of pylorus.

lactic acid occurs early during digestion and is inhibited during the latter period of digestion in the presence of adequate gastric secretion, and not a trace of lactic acid is to be found at this time in the absence of carcinoma or food stasis. It is for this reason that we practice gastric lavage prior to the administration of the test breakfast. When this is done, the appearance of lactic acid in the contents late during digestion points to inhibition of hydrochloric acid secretion, a condition frequently present with carcinoma of the stomach.

SUMMARY.

1. Fractional analysis of the gastric content is superior to the one-hour method in that it affords a continuous record of the secretory capacity of the stomach throughout the digestive phase.

2. Fractional analysis yields information pertaining to the motor function of the stomach which is not to be obtained by the one-hour examination.

3. Experience with fractional analysis has established the fact that with minor variations all analyses fall in one of five types, which are of definite diagnostic significance.

4. By combining fractional analysis with microscopical examination of the unfiltered contents at stated intervals of the digestive phase, we obtain a definite functional and specific analysis of the gastric contents.

DISCUSSION.

Dr. H. E. Murry (Texarkana): Dr. Rose is to be commended and congratulated on his paper, which is a thorough dissertation on the subject. There are two things that I would like to say about gastric analysis.

The Rehfuß method of making the analysis is the authentic method that is used by all gastro-enterological men.

We have found in about 250 cases, in stomachs that we have examined in this way, that four saltless crackers in six ounces of tap water gives a fairly standard amount of information.

Another thing that I would like to mention that does not seem to be appreciated by most gastro-enterologists is the method of passing the tube. One of my chiefs in New Orleans, Dr. Levin, who is doing gastro-enterological work, passes the tube through the nose entirely. I think that passing the tube through the mouth influences the acids in the stomach in a great number of cases; but in passing it through the nose it does not give the least amount of gagging and upsetting of the stomach, and that is one reason why I think it is superior to the mouth passage. By lubricating it with sterile vaseline and passing it through the nose—a very small tube is used. This does not in the least influence the gagging centers; the patient does not gag at all, and, as a rule, they are willing to submit to as many examinations as you desire. But, too often, in swallowing it by the mouth, they object, and object strenuously to another examination; that is one of the difficulties that I have found in my work.

I constructed a tube of my own. I had to do away with the Rehfuß tube because it was too large to pass through the nose. I had a little tip made of a piece of metal that was no larger than tube. I inserted this into the hole in the end. This tube, with the exception of very nervous people, gives perfect results. As a rule we don't have the least bit of trouble, and they are willing to have it done just as many times as you please.

Of course, in cases where there is a chronic cholecystitis, with not sufficient acute symptoms to indicate a cholecystectomy—that is, patients refusing to have it done—this method of draining the gall bladder suffices very well. It gives relief in almost every case and cures, so far as the patients have told me, cases enough to justify its use.

The x-ray is relied almost entirely upon by the general practitioners and surgeons, for the reason that the patients object so much to the passage of that tube through the mouth. The patient doesn't object particularly to drinking the meal, but passing the tube through the mouth is disagreeable.

I think that the x-ray can be done without in a great many cases; but when there is any indication for the x-ray the x-ray should not be relied upon alone, but used in conjunction with the gastric analysis.

Dr. W. D. Rose (in response): I appreciate Dr. Murry's remarks about the difficulty in getting patients to swallow a stomach tube; no patient likes it. However, those who have had experience with the large tubes formerly in use, experience little difficulty in swallowing the duodenal tube. It is true that the large size of the bulb of the Rehfuß tube is a disadvantage in most cases. My preference is for the Einhorn tube, in which the bulb is light, contains numerous fine fenestrations, and is approximately the size of the rubber tubing.

I believe that the routine examination of the fasting contents is decidedly a step forward in gastric analysis. This examination frequently reveals specific elements which are of distinct aid in diagnosis.

As to the choice of a test meal, I am convinced that the response obtained with the Ewald meal is greater than that which follows the administration of six soda crackers, which we formerly employed. This observation is in line with the findings of Rehfuß and his co-workers, who demonstrated a wide variation in the response of the stomach to test meals of varying composition.

OBSERVATIONS IN THE TREATMENT OF PSORIASIS.*

E. A. Purdum, M. D., The Martin Clinic,
Hot Springs National Park.

As the cause of psoriasis is yet undetermined and, in like manner, the cure of any given case always of doubtful permanence, we should encourage further attempts to present what appears to be evidence of improvement in the therapy of psoriasis.

Nine years ago, Sehamberg¹ and his associates conducting research studies in psoriasis concluded that on a given protein diet the subject of psoriasis will eliminate less nitrogen in the urine than does a normal individual on a corresponding diet. This retention of nitrogen seems to be, in a general way, in proportion to the extent and severity of the eruption present. It was also found that less nitrogenous food was required to maintain equilibrium than in the case of a normal individual.

The feeding of urea demonstrated that the nitrogen retention did not depend upon any disturbance in the eliminative capacity of the kidneys.

Analysis of the exfoliated scales revealed that they consisted of almost pure protein. The retention of nitrogen, however, was greater than could be accounted for by the exfoliated scales.

They found a low nitrogen diet has a most favorable influence upon the eruption of psoriasis and conversely that a high nitrogen diet exhibits an unfavorable influence, often causing extension of the eruption.

Those who are inclined to the opinion that psoriasis is due to infection have failed to produce adequate evidence, although cultures from the scales, vesicles produced over the lesions, and the response of the lesions to vaccines, give supportive reasons for continued researches as to possible bacterial origin.

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

Only recently, Kilroy² concludes that psoriasis is only a cutaneous inflammation caused by an external organism; that in its treatment internal medication is useless and that the problem of its cure will be solved by concentrating our efforts on discovering this external organism. Pending the discovery of such a cause, we should continue to try to find empirically the local applications most antagonistic to the growth of the unknown factor.

To accomplish this, he uses a lotion containing from 5 to 15 per cent each of lactic acid, acetic acid, salicylic acid and liquor formaldehyde with a weak percentage of mercuric chloride.

Certainly it seems that while we are yet unable to decide upon the cause of psoriasis we should, in the treatment of every case, be governed by the fundamental facts and more conclusive evidence given to us during the past eight or ten years.

The term "low protein diet" is relative. Schamberg states that placing a patient on a meatless diet is not of necessity placing him on a low protein diet. He may well take twelve grams of nitrogen a day without touching meat, fish, fowl or eggs. A low protein diet in the sense referred to represents a diet of nitrogen content below five grams a day. On such a diet, bread would be limited, cereals extremely restricted, milk allowed only in limited quantity and meat, fish, fowl and eggs completely prohibited.

The patient should live largely on green vegetables, fruits and other articles having a high caloric value but low protein value.

We have not paid as much attention to the hygienic management of these cases as we should have.

David King-Smith³ while in service during the world war noticed that psoriasis was very uncommon. This he attributed to the men's being physically fit and on simple diet, although a diet of high caloric value. Many of these men upon returning to civil life have developed psoriasis or had recurrences.

Corlett⁴, of Cleveland, has noted that in Southern countries with much sunlight, notably in the tropics, one sees few cases of psoriasis. He observed no cases in the West Indies. In this connection we should recall that the disease seldom occurs on parts of the body exposed to the sun. He once had a patient who cleared up while in Porto Rico

for two years, only to have recurrence upon returning to Ohio.

Therapeutically there is practically no limit to the various agents suggested for the treatment of psoriasis.

For external application, the plan followed by Sutton⁵ is probably less confusing and as productive of results as any. He now uses a 20 per cent mixture of chrysophanic acid and petrolatum. The ointment is applied to the patches twice daily with a stiff tooth brush. The patients are kept in bed—a full length union suit is worn and the eyes are bandaged at night. This routine is continued on an average of seven days. Following this, any remaining patches can be treated and kept covered to prevent staining the clothing.

Autogenous colon vaccine is given along with the above treatment and later arsenic medication is begun.

Sachs⁶ reports that since 1918 he has successfully treated thirty-four cases of psoriasis vulgaris with intravenous injections of a 20 per cent solution of sodium salicylate. Only recent cases, however, have proved to be adapted to the treatment. The treatment of recent cases with baths and ointment he has found to be superfluous.

The first injection was 2 grams, the second 3 grams and the third 4 grams, which was usually the maximum dosage. From six to eight injections, extending over a period of three or four weeks, generally suffice but the efflorescence does not disappear until three or four weeks after the last injection.

Since this report of Sachs appeared about a year ago, we have tried this method of treatment with sodium salicylate intravenously on all cases of psoriasis coming under our observation with uniformly good results, having definite improvement in each case treated and entire disappearance of the eruption in the more recent cases.

We think it is also worthy of mention that in a case of dermatitis herpetiformis of fourteen years' duration, that a distinct improvement was produced by the injection of 15 grains of sodium salicylate intravenously every four to seven days until eight doses were administered. Six months after the last injection the report from this patient stated that her skin condition was yet much improved but that new areas were appearing from time to time. In an aggravated case of this kind, involving the entire skin sur-

face, this amount of improvement was of such relief that the patient has no hesitation in repeating a similar course of injections every few months.

We have found that the injection of fifteen or twenty grains of sodium salicylate intravenously every three to five days will accomplish as much in psoriasis cases as the larger doses advocated by Sachs and that the total time covered during the period of treatment can thus be materially reduced without changing the clinical results.

While the drug is being administered, particularly if a small vein is being used, there may be some pain extending up the vein. This may usually be controlled by giving the injection more slowly.

We have found absolutely no contraindications to this method but in those of more advanced age we think it best not to exceed a dosage of twenty grains at any one injection.

In the psoriasis cases of long standing we have been able to obtain better results with this method along with external applications, as stated above, to the more resistant areas than with any previous course observed or followed in our work.

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DISCUSSION.

Dr. W. R. Bathurst (Little Rock): I want to compliment Dr. Purdom for presenting this very instructive paper. Also to add two features that to me seem to be worthy of consideration, particularly in a disease of unknown etiology. First, the unusually good health otherwise in the majority of patients with psoriasis; and, second, they invariably respond to the local application of anti-parasitic remedies.

Dr. E. A. Purdom (in response): I would like to say, in addition to what was in the paper, that more could have been written and more evidence produced and substantiating facts given, but I made the paper rather short.

The first part of the paper consisted mostly of references. I made it brief because the number of treatments haven't been extensive.

I will emphasize again, however, that this method, in conjunction with what we have known in the past, has produced more satisfactory results than anything I have been able to use, and, if we can give more relief or make the appearance of the lesions at less frequent intervals, then we shall have given a great deal of comfort and sometimes apparently a cure of these patients.

ECTOPIC PREGNANCY.*

C. V. Scott, M. D., Little Rock.

Mr. Chairman, Members of the Arkansas Medical Society, Ladies and Gentlemen:

In bringing to you this subject for your consideration, I do not think that I can present anything essentially new, and very little that is original; but I hope to refresh your minds by calling your attention to a few facts that are given to us by the authorities, such men as Crossen, Henker, Williams, Perry, Tate, Wirth, Webster, Polak, Tuholski, Hoffmeyer, Minor, Kustner and others.

DEFINITION.

Extra-uterine pregnancy is a condition that follows the fertilization of the ovum, in which the ovum, for some reason, is unable to get back into the uterus.

ETIOLOGY.

The etiology is not very well understood. It is asserted by men who have made a study of the subject that its origin is a problem to be solved. Many different men have made these investigations and have found many different things as causative factors. It is designated by some as due to destruction of the cilia in the fallopian tube by salpingitis. By others the trouble is laid to pelvic inflammation, causing adhesions to form pressing on the tube. Others say that polypi within the tube, torsion of the tube, occlusion by diseased conditions producing a stenosis at the fimbriate extremity of the tube. Still others insist that tumors in the pelvis, other than the tube itself, pressing on the tube, prevent the fertilized ovum from returning to the uterus; while others contend that gonorrheal salpingitis is the main cause.

In my opinion, however, when a woman has had a violent gonorrheal salpingitis in both sides, that renders her sterile, she does not, after having had a bad attack of gonorrheal

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

salpingitis, ever become pregnant, either extra-uterine or intra-uterine.

It is alleged by both Hoffman and Mandel, especially, that all pregnancies are primarily tubal; that fertilization takes place within the tube, and from the point of fertilization is wafted by the cilia into the uterus, where normal pregnancy proceeds. There is no doubt that there is much truth in many of these conjectures. They may all of them have to do with conception and the consequent production of this condition.

There are some who take the ground that there are diverticulae in the tube which prevents fertilized ovum entering the uterus.

There are four types of this condition spoken of in the literature, all of which, I believe originated in the one term, tubal pregnancy. They are tubal, ovarian, broad ligament and abdominal. It is said that in the ovarian type the spermatozoa enters the ovum before it leaves the Graafian follicle—before it leaves the ovary—due to some previous pathological condition of the ovary and it is not discharged until the process of fertilization bursts it asunder and throws it into the abdominal cavity.

Broad ligament pregnancy is supposed to result from a ruptured tube beneath allowing the fertilized ovum to drop between the folds of the broad ligament. Abdominal pregnancy is said by some to be the result of migratory or wandering ovum, the spermatozoa meeting the ovum in the pelvis outside of the uterus, and there fertilization takes place; that the fertilized ovum attaches itself to the peritoneum, or to some organ of the body, where it derives its nourishment and abdominal pregnancy ensues. This, I think, is probably not correct. I think these abdominal pregnancies, wherein the products of conception have been extruded into the abdominal cavity, if when the rupture occurs, they are thrown into the abdomen and the placental tissue is not so badly injured that the process of pregnancy proceeds with this placental tissue adhere to the point where the rupture occurred, or to adjacent tissue, receives a blood supply and continues to grow.

Tuholski gives the history of a case where this placental tissue became adherent and received a blood supply from the border of the liver. In this case we can well see it is exceedingly serious both for the woman and

for the baby, on account of the attaching of the placenta to the border of the liver.

So much for the etiology.

Through reading of the literature on this subject and the experience I have had clinically, I thought perhaps I might be able to bring the subject down to a practical point of view. To me it is very fascinating.

The symptoms and signs of this condition are not unlike those of normal pregnancy. A woman misses her sickness; she is nauseated in the morning especially; sore nipples. She goes on for a few weeks; she notices a tenderness on the side which is affected. This nausea, vomiting and tenderness of the nipples continue. She is thoroughly convinced this is normal pregnancy. A few days later, or from four to six weeks, she notices a return of the flow. She thinks then, perhaps, that she is going to miscarry. She goes on for a few days and the flow stops; but the soreness in her side continues—probably grows worse. She is well again for a day or two, except for the dull pain and soreness in side; while quiet feels fairly good, and without any premonition she takes sick again. Flow continues for a day or so, accompanied with violent pains. She passes particles and shreds of membrane which in all probability is decidua membrane. She thinks then she has miscarried. In a day or so later perhaps she will be seized with lancinating, unbearable pains in her side. She tries hot applications and cold applications. Perhaps in the first seizure she faints; her face becomes pale, she has cold sweats, pulse gets wiry and thready. She is a very sick woman. The pain is unbearable.

She seeks relief in large doses of morphia, hypodermatically. The extreme pain and shock is probably due to rupture of the tube near the fimbriated extremity. If the shock, pallor and air hunger continues, it is quite evident that she has a rupture near the uterus, and if hemorrhage is active and profuse prompt surgical interference is indicated to save life. If she does recover in a measure from the shock and pain, she feels very comfortable for a day or so; gets up and stirs about. That same lancinating pain recurs and she comes back for another hypodermic. If at this time you make a digital examination you encounter a boggy mass in the cul de sac of Douglas, and by gentle manipulation you

will discover a tumor, of greater or less size on the affected side.

SYMPTOMS.

Three cardinal symptoms are almost never absent in any case of this kind that has come under my observation. Missed menstruation; onset of lancinating pain; swoon, shock and symptoms of internal hemorrhage. The missed menstruation, that may return in a few days, and the passing of decidual membrane.

COMPLICATIONS.

The most frequent complication aside from the hemorrhage or rupture, that attend these conditions, is peritonitis.

The differential diagnosis between this and pyo-salpingitis, which is most often mistaken for it, is not so easily made, the difference being the irregularity of the missed menstrual period and in pyo-salpingitis the temperature is very much higher and usually no membranes are passed in her flow.

TREATMENT.

The only treatment that can be given satisfactorily to a woman in a case of rupture of the tube, when the symptoms show the usual shock, is surgical interference, tying off the blood vessels, cleaning out the mass; and, most generally, if you can get the patient within a few hours after the acute onset, you can save her life. When you are called to a patient who has had this rupture a week or ten days or two weeks has elapsed and she has developed peritonitis, the best treatment is to place her in the Fowler position, with ice packs to the abdomen continually, with the Murphy drip proctoclysis until the temperature goes down, and the peritonitis subsides, then operate.

I have a few cases, out of the number I have treated, I wish to present, characterized by some unusual features.

No. 1.—Symptoms: shock, lancinating pain, pallor, air hunger, pain not relieved except by large doses of morphia; thready pulse. Made diagnosis ectopic pregnancy with active hemorrhage. Upon operation found abdomen full of blood, the vessels actually spouting; tied off, cleaned out mass; uninterrupted recovery. Two years later this patient had rupture of tube on the other side. Operated and recovered.

No. 2.—This was a case of ruptured tube, where I was called in consultation in a distant town. Diagnosis had been made of appendicitis, although the symptoms proceeded from the left side; had all the classical symptoms of extra-uterine pregnancy. She was treated there for three or four weeks, when she returned to Little Rock and came to me for treatment. Upon examination I found a large mass in her left side. From the symptoms she gave me I advised immediate operation. Found large mass bound down by adhesions from the bladder, from the colon, the omentum and adjoining tissue. Removed mass, cleaned out abdomen; rapid and uneventful recovery. One peculiar sequela in this case was that in less than a year she became pregnant again normally and at full term was delivered of a full sized, healthy baby girl. Twelve months later she died of tuberculosis.

No. 3.—Was called to see this lady in consultation. She had all the classical symptoms; menstrual flow ceased, passed decidual membrane, lancinating pain, etc. I insisted upon immediate operation. She declined because her husband was at Camp Pike and could not be with her. By 8 o'clock next morning her husband came home and she was taken to the hospital and we operated that afternoon. Found abdomen filled with blood, the products of conception in the abdomen, in the right side tube. We closed what appeared to be a clean wound; left in drainage, as we usually do in these cases; closed with cat-gut and silk-worm gut stitches and skin clips. Eight days later, after skin clips were removed, I was hurriedly called to the hospital with the information that patient had secondary hemorrhage. Found her in collapse. The wound in the abdomen had not healed; no adhesions had taken place. Found that on the tube I had tied off, the ligature had sloughed off; bleeding was active from the ovarian artery. This woman died on the fourth day after this last operative procedure, from loss of blood and peritonitis.

No. 4.—Was called to see young widow in consultation. Upon examination made diagnosis of tubal pregnancy with rupture. Patient became very indignant; stating that the suggested condition was absolutely impossible; she had had no opportunity for becoming pregnant; but the next day we had

to quiet her with a hypodermic and take her to the hospital. Found that peritonitis had begun and on operating found the products of conception in abdomen, and blood slowly oozing into the already blood-filled abdomen. Cleaned out and washed out with saline solution; put in drainage; ice packs to abdomen; put in Fowler's position. Patient died with general peritonitis on the fifth day after operation.

No. 5.—Called in consultation to see a young lady who, while at work, was seized with this characteristic terrible lancinating pain; fainted and fell; was revived by cold water dashed in face; taken to her room. Pains were continuous except when under the influence of an opiate.

On making digital examination I found boggy mass or tumor. From the symptoms she gave of having an attack of sickness after she had passed her monthly period; cessation of flow; then a recurrence; passed decidua membrane; lancinating pain; swoon; shock; all making typical picture. I promptly informed her of her condition. She then admitted that it was possible. Took her to hospital; found abdomen filled with blood clots; no active hemorrhage; slight oozing from end of tube; tied blood vessels; cleaned out mass; put in drainage; recovery uninterrupted.

Case 6.—Seen in consultation. Classical symptoms. This case shows how nature does seem to take care of these cases. All these symptoms must have been present at the time of this rupture, which had occurred eight years before. We operated for fibroid of uterus. After it had been removed, we found attached to the uterus a sac containing the products of conception, which was in that time firmly attached to the posterior surface. We had not suspected this condition when we operated and it was found by the pathology. Patient made an uninterrupted recovery; do not know whether the ruptured pregnancy had anything to do with fibroid or not.

Case 7.—Also seen in consultation. Found classical symptoms; diagnosed extra-uterine pregnancy with rupture of the tube. Operation advised, but refused. This case went on, never feeling well, always having pain; suffering most of the time most intensely; hypo being often necessary for tolerance. On the ninth month of pregnancy, still rejecting operation, it was made plain to her that this

baby was in the abdominal cavity and could not be born except by surgical means. Finally, after having demonstrated by x-ray picture the position of the child, she agreed to the operation, saying at the same time, "Save the baby. When you do it I shall die."

She was taken to the operating room at 3 o'clock in the afternoon; incision made from the zyphoid tip to the tubes. The child was delivered successfully; weighed 8 1-2 pounds; cried lustily on reaching the air; but its color was never good. It lived until 5:20 the next morning.

There were no membraneous coverings, except a very thin tissue, quite friable, which was immediately next to the child. There was very little fluid in the abdomen. After severing the cord and handing baby to the nurse, we found that the placenta was adherent. A little traction was made on the cord, the attaching tissue being so friable that it peeled off on being touched. The hemorrhage was most profuse and despite all our efforts with hemostats, packs, towels, etc., to staunch the crimson flood, the blood poured out in great quantities. We worked most faithfully and energetically for ten or fifteen minutes; but by that time the woman had bled to death.

Case 8.—Tubal abortion. Was called to see this patient ten miles in the country. After making thorough examination and finding typical symptoms made diagnosis of ectopic pregnancy with rupture. Patient had developed peritonitis. According to their story, the rupture occurred a week previous to my call. Brought her to hospital, placed her in Fowler's position; packed her abdomen with ice; gave her proctoclysis and hypo for pain. In a week's time the general peritonitis seemed to have subsided. We made incision at the median line; found the entire placenta in the right tube and tightly adherent—with cord attached to placenta and fetus. About a 3 1-2 months fetus was lying full in abdomen. We removed the tube, tied off the bleeding points, put in drainage. Patient greatly exhausted by hemorrhage, but made uneventful recovery.

These cases show the truth of my assertion that the three cardinal symptoms I have mentioned are almost never absent in cases of ectopic pregnancy with rupture; the menstrual flow returning in a few days; miss again; return in a few days; pass decidua

membrane; pain, swoon, shock; pain so severe that nothing but a hypo will relieve it.

In closing, I wish to emphasize the importance of the three cardinal symptoms. If they are not present you cannot safely make a diagnosis of abdominal pregnancy.

DISCUSSION.

Dr. Smith (Paris): In the great majority of these cases, we ought to be able to make a diagnosis before rupture. If we could do that, we could operate on these cases and have very little mortality. The majority of the cases that I have seen ruptured and formed pus in the cul de sac. When it does that, we have to open and drain. Sometimes in the ordinary case of tubal pregnancy, there is in the first place a cessation of menstruation and a vague, indefinite pain on one or the other side. In nearly all of these cases there is a little discharge of dirty, grumous, bloody material. That is the most prominent symptom in these cases. A physical examination will show you a tumor in one or the other side. A tumor in tubal pregnancy is a little bit different from any other sort of tumor. It is not an inflammatory trouble. It is a soft, movable mass. We ought to be able to make a diagnosis then if our patients would come to us. Ordinarily they do if we have them in charge and can look after them. They sometimes have a tubal abortion and an extrusion of the placenta from the end of the tube. In this case we don't have much hemorrhage. There is where we are most likely to have pelvic abscess.

There is no treatment except to relieve it.

Dr. C. V. Scott (in response): I don't think there is anything that I could add.

COUEISM.

"As for the physicians, being men with a sense of humor, they will view good-naturedly the present popular craze and when it passes to give place to another, they will be found still engaged quietly in their ancient art of applying the sound principles of sane psychology and everything else to the healing of sick humanity."—*R. I. Medical Journal*.

TWO ELECTRONIC DIAGNOSES OF ABRAMS.

Instead of the blood of a patient a physician sent the blood of a guinea pig to one J. W. Eisiminger of Oklahoma City, who operates a physico-chemical laboratory for the electronic reactions of Abrams. Eisiminger is an osteopath. The report received by the physician on the patient, whose history was sent in, reads as follows:

"Congenital diminished resistance, cerebrospinal and digestive strain, 39 ohms; metastatic carcinoma, 6 ohms; liver and right

colon, tuberculosis genito-urinary tract, 6 ohms; colisepsis, 4 ohms; streptococcal infection, 12-25 ohms, in gall bladder region."

Another physician sent Eisiminger some sheep's blood on blotting paper with a blank supposedly for a fifteen-year-old boy. This physician received the following diagnosis:

"Congenital diminished resistance cerebrospinal strain, 38 ohms; metastatic carcinoma of left lung and pancreas, 8 ohms; Neisserian infection genito-urinary tract, eyes, 4 ohms; tuberculosis of genito-urinary tract, 4 ohms."

However, it is possible that these blood specimens were not taken in subdued light and that Eisiminger was not informed if the subjects had red hair nor of their religious faith—factors which are said to play an important part in diagnoses made by the Abrams method (*Jour. A. M. A.*, Dec. 30, 1922, p. 2247).

Dr. B. L. Eiker, *Journal of the Iowa Medical Society*, summarizes a few facts as they appear to the general practitioner engaged in country practice. The practice of medicine begins and ends with securing the best that can be secured for the patient.

The utmost care should be exercised in soliciting men and women for the study of medicine.

The highest standard of medical education compatible with advanced medical science must be maintained at all hazards.

The people at large must realize that part of the responsibility for health conditions rests with them.

Neither medical men nor laymen should waste valuable time in lamentations over past history. Turn your faces to the front. Rivet your eyes upon the great possibilities of the medical future. Remember that nothing can permanently endure unless it rests upon an established, proven and permanent foundation. Give no heed to the side issues of "opathies" and "isms." Give them responsibility, leave them alone and they will die in their own excrement. But march straight toward that goal of accomplishment, namely, the prevention of disease, the alleviation of human suffering and the building up of the efficiency of the man power of the country.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

VACCINATION IS 2,000 YEARS OLD.

"Vaccination is an outgrowth of man's effort to protect himself from pestilence by using nature's methods of defense," says Dr. G. W. McCoy, director of the Hygienic Laboratory of the U. S. Public Health Service. "Primitive man noticed that recovery from a first attack by most diseases gave immunity against other attacks, and some 2,000 years ago he began to inoculate his fellows with smallpox when conditions seemed propitious instead of waiting for nature to do it at some time when conditions might be very unpropitious.

"Inoculations against smallpox were made in India and in China as early as 300 B. C. Later, when the disease reached Europe, inoculation went with it, supplemented by a new method called 'selling smallpox'—exposing a well person to contact with one ill with the disease so that if he survived he would be proof against it.

"Inoculation differs somewhat from vaccination as devised by Jenner, but the principle is the same. Moreover, long before Jenner's day it was known that an attack of cowpox gave immunity from smallpox; and records show that men who had recovered from cowpox had themselves inoculated with smallpox to make the proof conclusive. Jenner, however, as he himself says, 'placed vaccination on a rock,' where he knew it would be immovable.

"Before the days of vaccination conservative estimates show that one-third of all persons had smallpox and one-tenth of all deaths were due to it. Today smallpox is rare; many physicians have never seen a case; and, where vaccination is consistently practiced no deaths from it occur. Formerly smallpox was considered a children's disease; and it still is a child's disease—where infantile and school vaccination is neglected. Witness the Philippines, where four or five years ago, after years of neglect of vaccination, an epidemic swept away nearly 50,000 persons, a large percentage of whom were children under ten years of age.

"In the United States, well-vaccinated communities show low smallpox rates—Maryland with one-tenth case per thousand population; New York with one-fortieth per thousand, and the District of Columbia with 0.14

per thousand. Poorly-vaccinated States tell another story: Oregon with 1.45; Washington with 1.72; and Kansas with 2.0 per thousand population.

"Some communities wait till an epidemic breaks out and then rush to vaccinate. These stop the disease—after it has caused many deaths and has 'branded' many survivors. Sixteen months ago, in Kansas City, an epidemic of smallpox began, yielding 350 cases and 123 deaths; and a few months later another started in Denver and yielded 950 cases and 288 deaths. Such epidemics always end the opposition to vaccination in the community—for a time."

Personal and News Items.

Dr. and Mrs. R. C. Dorr, Batesville, visited in Little Rock this month.

Dr. O. F. Portwood is now associated with Dr. L. H. Lanier in Texarkana.

Dr. Cyrus Lee Stevens of Athens, Pa., for twenty-one years secretary of the Pennsylvania Medical Society, died February 19, 1923.

Dr. W. F. Smith, division surgeon, Missouri Pacific Railroad at Little Rock, announces the construction of the new 125-bed hospital in Little Rock, which will cost \$600,000.00. Work will begin about May 1st.

Drs. J. W. Walker, Fayetteville, Robert Caldwell and William R. Bathurst, Little Rock, attended the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, March 5, 6, 7, at Chicago.

Any one wishing to make a contribution toward the proposed memorial to the memory of the late General William C. Gorgas, should communicate with Dr. Geo. B. Fletcher, Hot Springs, chairman of the committee representing the Arkansas Medical Society.

This is part of a campaign of international scope in which every medical society is asked to assist.

The South Carolina Medical Association will hold its 75th anniversary home-coming meeting in the city of Charleston, April 17, 18, 19, 1923.

The association desires to get in touch with every South Carolina doctor living outside of the State, and every graduate of the medical college of the State of South Carolina.

Communications should be addressed to Dr. E. A. Hines, secretary of the South Carolina Medical Association, Seneca, S. C.

The Committee on Medical Legislation of the State society have been very busy during the recent session of the Legislature. No change has been made in the present Medical Practice Act. Those taking active part in the work have in mind to eventually make such revisions that will be an improvement and meet the approval of all schools of healing. Some of our members are of the opinion that we should have a chair on homeopathic and eclectic medicine in our State medical school, and eventually consolidate the various graduates of medicine into one strong medical society.

Abstracts.

THE RESOURCEFUL GENERAL PRACTITIONER OF MODERN MEDICINE.

Frank Billings, Chicago (*Journal A. M. A.*, February 24, 1923), says that the time has come for plain statements in regard to modern medical practice, with the purpose of bringing the public and the members of the medical profession as a whole back to good common sense views. It is his purpose to attempt to show how the general practitioner may continue to occupy the important place in the field of practice which was his until recently. He says that in their work, not all general practitioners are resourceful and sure of themselves. This fault is due, in some instances, to inadequate early training, but in a majority of men it is due to laziness and failure to take advantage of the opportunities afforded all physicians. The physician who makes all possible use of his daily clinical opportunities learns something new and useful every day of his professional life. Naturally, this daily clinical study develops the powers of observation and manual dexterity in physical examination and in treatment. The knowledge which this ever-increasing experience affords is refined and stabilized by purposeful reading of standard textbooks and periodicals, by association with fellow practitioners and by the discussion of

papers read before medical societies, and by writing papers on subjects which the physician's daily clinical observations justify. Membership and active participation in the work of the county medical society is of great educational benefit to the physician. It affords personal contact with fellow practitioners in the courteous discussion of medical subjects and professional problems, promotes mutual respect and good will, and is a potent factor, conducive to increased self-respect and self-reliance on the one hand, and to a decrease in the size of the hat, if imaginary megaloecephaly makes one a nuisance to his fellows. Concisely written reports of interesting clinical observations presented before medical societies and for publication are a splendid means of self-education, and are justified because they furnish a valuable addition to medical literature. Diagnosis is the most important factor in the practice of medicine. With due regard for the value and need of all the splendid ultrascientific laboratory and instrumental methods of physical and functional diagnosis in investigatory medical work, they are needed in the routine clinical care of not to exceed 20 per cent of all the patients of any urban or rural community. Unfortunately, many lay people have been led to believe and apparently a large number of physicians think that the routine application of the ultrascientific methods of diagnosis is necessary in the majority of cases. The fact is that the diagnosis can be made in fully 80 per cent of all cases by a resourceful general practitioner who will efficiently use his brain, special senses, hands and an always available simple and inexpensive laboratory and instrumental equipment. The history of the past and present condition of the patient is one of the most important, if not the most essential, factor. A majority of practitioners do not make written records of their patients: these are absolutely essential to accuracy in diagnosis and efficiency in practice. The conscientious practitioner will make a careful, general physical examination of practically all patients who seek his services. An occasional patient with a slight ailment, and especially those with slight injuries or lesions requiring surgical treatment, are exceptions. Daily practice in technic and judgment is the program which every physician must follow to become a skilled diagnostician. The practitioner can gain much by observing others at work in

organized clinics or by taking postgraduate courses in diagnosis, when these are available; but the efficiency of the practitioner in diagnosis is mainly dependent on his own industry and determination to make the most of his own clinical opportunities. There is a growing custom in urban practice for general practitioners to have the routine laboratory examinations, such as urinalysis, blood estimations and other simple tests, made and the results interpreted for them at the numerous available commercial laboratories. In Billings' opinion this is a great fault in practice; it would be quite as rational for the practitioner to depend on available organized clinics for the physical examinations and diagnosis of patients. For the few patients who require laboratory or instrumental tests which involve special knowledge and technical skill in their application, such as blood chemistry, serology, bacterial cultures, elaborate blood counts, electrocardiography and efficient roentgenology, the practitioner should make use of the excellent commercial laboratories, public clinics and available State, county and municipal public health laboratories. Billings believes that the preservation of the general practitioner, as the most important factor in the field of practice, is dependent, chiefly on himself. He must keep abreast of the advance of modern medical knowledge and practice, chiefly by his own efforts. If he strives to improve and help himself he will be successful; will justify his importance in the medical field, and will attract the ill and injured to his door because of his professional individual superiority as compared with men in narrower fields of practice, alone or in public or private groups. The necessity for the preservation of the general practitioner in the city and in rural districts, for the general public good, justifies and demands that the organized medical profession should assume leadership in educating the public to understand and comprehend the need of hospital centers, including diagnostic facilities in every community financially capable of self-support.

County Societies.

BENTON COUNTY.

(Reported by C. A. Rice, Sec.)

An unusually interesting session of two hours, in the parlor of the Massey, was held in Bentonville, on afternoon of February 13, 1923. After the minutes of the last meeting

were read and approved, and in the absence of Doctors Gillen, Green and Hurley, the essayists of the occasion, Dr. Smiley cheerfully responded with a timely paper on what proved to be—after an operation—gall-stone colic, with most of the symptoms negative.

Dr. Moore made a clinical report of an unusual case of a pregnant woman, to the following members who took an active part in discussion, and reporting similar cases: Drs. T. E. Hodges, Scott, Thompson, Highfill, McNeil, Perkins, and C. A. Rice.

Dr. Doty's application to become a member of the B. C. M. S. was recommended, read and referred at last meeting to the board of censors, who approved of same. Motion carried to go into an election. The result of the vote was unanimous, making the doctor a full-fledged member.

Motion carried, instructing the secretary to publish the minutes of this meeting. Motion carried also to adjourn, and meet at Siloam Springs March 13, 1923. Program, papers by Doctors Scott, Duckworth and Smiley.

Book Reviews.

Diseases of the Skin.—By Henry H. Hazen, M. D., Washington, D. C. Second edition. 241 illustrations, including two color plates. Published by C. V. Mosby Company, St. Louis, Mo. Price, \$7.50.

The rewriting of this edition has made a marked improvement over the first issue. The author has described the common diseases fully and easily comprehensible to the student or general practitioner.

Principles and Practice of X-Ray Technic for Diagnosis.—By John A. Metzger, M. D., Los Angeles, California. With 61 illustrations. Published by C. V. Mosby Company, St. Louis. Price, \$2.75.

Dr. Metzger has prepared this book in an effort to place before the student and operator a formula on which to base his work in order that he may obtain better results and thus be able to reach a more correct diagnostic interpretation.

Clinical Medicine, Tuesday Clinics at the Johns Hopkins Hospital.—By Lewellys F. Barker, M. D., LL. D., Professor of Medicine, Emeritus, Johns Hopkins University; Visiting Physician to Johns Hopkins Hospital, Baltimore, Md. Octavo of 617 pages, illustrated. Philadelphia, W. B. Saunders Company, 1922. Cloth, \$7.00 net.

This work represents in a form that more or less closely approximates the reports of

Obituary.

DR. B. GWALTNEY.—Boulanger Gwaltney, M. D., of Traskwood, died February 19, 1923, aged 36. He leaves a wife and three children.

DR. S. W. ALLEN.—Samuel William Allen, of Little Rock, died in Chicago, February 10, 1923, aged 62. He was born in Rock Island, Ill. He is survived by his wife, eight children and three grandchildren.

DR. WILLIAM E. ARNOLD.—Dr. W. E. Arnold of Prescott, died February 25, 1923, aged 86. He is survived by three daughters and two sons.

Dr. Arnold retired from active practice of medicine about fifteen years ago, having been engaged in the farming business since that time. He was one of the pioneer physicians and surgeons of Nevada County, having practiced medicine for more than forty years before his retirement. He was an ex-Confederate soldier and rendered four years' service during the Civil War. The doctors of Prescott acted as pall bearers.

DR. ALEXANDER EVERETT HARRIS.—Dr. A. E. Harris of Little Rock, died March 7, 1923, aged 44. Surviving are his wife, two sons, two sisters and two brothers.

Dr. Harris was born in Collins, Arkansas, December 9, 1878, the son of Arthur Everett and Viola Collins Harris. He was educated in the grammar schools and high school at Monticello and later attended Hendrix College and the Southwestern University of Georgetown, Texas. He received his medical education in the Jefferson Medical College of Philadelphia, where he was graduated in 1901. He served as an interne at St. Timothy's hospital in Philadelphia.

Book Reviews (Continued).

Dr. Barker's clinics at the Johns Hopkins Hospital. His method in collecting facts necessary to a general diagnostic survey may be considered under the following heads:

- (1) The anamnesis.

(2) The general physical and psychical examination.

(3) The application of certain laboratory tests.

(4) X-ray examinations.

(5) Examinations in special domains.

Every physician must work out his own method for exciting plausible ideas of solution of the diagnostic problem from data collected. Dr. Barker, as an aid in the arousal of diagnostic suggestions, has found it to be useful to think, first, of the possible pathological-physiological meaning; second, of the possible pathological-anatomical basis, and, third, of the possible etiologic and pathogenic relationships of a given datum or group of data. We believe this book will appeal to a very large number of physicians.

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1923

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Original Articles.

MOBILIZATION OF STIFF JOINTS.*

Willis C. Campbell, M. D., Memphis, Tenn.

The restoration of function to stiff and ankylosed joints has always been an unsolved problem. Various operative procedures have been advanced, such as interposition of foreign materials of silver and gold, but not until recent years have a sufficient number of successful results been reported to warrant the employment of any procedure. Unfortunately, no animal experiments are of the slightest value as we could hardly find animals with the same pathology as in human ankylosed joints; besides the intelligent co-operation in the after treatment could not be obtained. Consequently, the future success depends alone on the personal experience of the surgeon on the human subject. This is just the reverse in other conditions. For instance, animal experiments have been of the greatest aid in developing our technic in bone graft surgery.

The mobilization of an ankylosed joint may be accomplished by simple excision, provided sufficient bone is removed; but such a procedure may render the part weak and unstable. To reconstruct a joint, with a wide range of motion and stability, that will stand the strain of average daily use, is a far more difficult problem. However, unless such a result can be secured a stiff joint in the most useful position is preferable.

In only selected cases should operative procedures for mobilization of ankylosed joints be considered. The following pathological conditions, encountered in such joints, decrease the chances of success or actually contra-indicate surgical measures:

1. Tuberculosis: In no case should a joint be entered for the purpose of mobilization when tuberculosis was the causative agent in the production of ankylosis. Undoubtedly, it might be possible to obtain excellent results in some instances; but the probability of "lighting up" a latent tubercular process is well known and should be sufficient warning against surgical measures.

2. In those in which a destructive osteitis, in the early life, has obliterated the epiphysis a materially shortened extremity is encountered, mobilization of such a joint obviously would not be of sufficient advantage to justify the means.

3. Extensive scar tissue, binding the skin to the bone, may obviously render the procedure unsuitable.

4. Extreme muscular atrophy with reorganization of bone structure, as is seen when a bony ankylosis has existed over a long period of time. The medulla may pass through the joint, a canalization with re-arrangement of lamella. In such an instance sufficient base would not be found to reconstruct a functional joint, besides the open medullary canal might be a factor to be considered; also the muscular apparatus is extremely atrophic, the restoration of which would be difficult.

5. Old dense eburnated bone, when found for a considerable distance on both sides of the joint, is not favorable soil for reproduction of a movable joint. Such a condition is usually caused by an extensive virulent osteomyelitis, the result of which is low grade bone tissue, which bears the same relation to normal bone that scar tissue does to normal soft tissues. In fact, healthy spongy bone should compose the articular surfaces of the new joint; consequently, the chance of success is very slight when the structure of the bone has been transformed for one or more inches beneath the joint line.

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

There are, in reality, only two conditions that cause ankylosis in which open surgical procedures should be employed for the purpose of restoring motion. First, *traumatism*, crushing of the joint surfaces, tearing of the periosteum or multiple fractures, followed by bony ankylosis. Second: *acute infectious arthritis* due to staphylococcus, streptococcus, pneumococcus, gonococcus, etc. These organisms erode and disintegrate the cartilages and the superficial bone, unless the infection begins in the shaft, and then we have an extensive osteomyelitis and not a localized arthritis.

In no case should this operation be lightly undertaken. The social status, occupation and co-operative intelligence, or "grit" of the patient must be duly considered. For instance, a young woman applied with ankylosis of the elbow at about 160 degrees flexion, with the forearm in pronation. She was a pianist and in her present state able to pursue her vocation. We declined to do the operation though good function might have been secured; but, even if such was the case, we could hardly be sure of obtaining the required degree of pronation essential to successful performance on the piano.

A chronological survey of surgical procedures for the purpose of mobilization of joints, with bony ankylosis, has been omitted; however, there are five well known methods practised at the present time by various surgeons, which are:

1. Wide excision of articular surfaces which usually causes instability and should not be considered.

2. Pedunculated fascial flaps have been extensively employed between the articular surfaces, after remodeling or carving out a new joint. This procedure has been discarded by a majority of experienced operators in the field.

3. Interposition of animal membranes, specially prepared, as Cargile's, Baer's pig bladder, Allison's fascia, etc. While success has been reported the disadvantage is that foreign body irritation invites infection and the material is often extruded.

4. Transplantation of free fascia lata between the joint surfaces.

5. Mechanical reconstruction of the articular surfaces with removal of sufficient bone to secure mobility without the interposition of any substance.

Recently we have employed a sixth method in elbows, which has been satisfactory in a limited number. This procedure has been previously described.

There is only one measure in common use for restoring motion to a stiff joint, and that is "brisement force," or "breaking up adhesions;" which is only mentioned for the purpose of condemnation. It is no more feasible to expect an inflamed joint to function through force than a similarly affected eye or intestinal tract. We must pursue the same broad general principles in the treatment of joints as we do in the same pathology elsewhere. Rest to an inflamed joint is just as essential as to an inflamed eye, or intestinal tract, and when function is increased it must be done gradually and with caution and care. I have repeatedly seen evidence of fractures, crushing of joint surfaces and tearing of important structures through force, completely incapacitating the part which might have been restored by natural methods. In those instances where the articular surfaces are intact and joint motion is limited by contractures from without, function may be obtained by reconstruction of the soft tissues. For instance, the quadriceps tendon may be elongated, by the method of Bennett, allowing flexion. Scar tissue contractures may be dissected out. Plastic procedures on the capsule may also be of advantage, as may various other procedures.

We have operated for restoration of function on practically all of the larger joints with bony or strong fibrous ankylosis. These procedures, which are called arthroplasties naturally differ as do the mechanics of the individual joint; but it is unnecessary to describe in detail the technique of each. The operation consists in remodeling the articular surfaces, so as to restore as near as possible joint function. It is not essential to reproduce the joint itself in detail, but the mechanical principles must be the same. For instance, in the knee one large condyle is carved on the lower extremity of the femur and a shallow cavity on the upper extremity of the tibia. To attempt to make a new spine, intercondylar notch and separate condyles and tuberosities, merely complicates as no new cartilages or crucial ligaments are forthcoming. However, minute accuracy is essential to the proper relation of the articular surfaces; otherwise, the result will be interposed between the joint surfaces, or if any is neces-

sary. Recently we have reconstructed three knees in which no substance has been placed between the bony surfaces; but sufficient time has not elapsed to consider results.

In bony and fibrous ankylosis the procedure is the same as if there is destruction of the articular cartilage; however, contractures of the peri and extra articular structures often tax one's ingenuity to the limit to accommodate motion. Various plastic arrangements are required and the question of circulation must be studied in detail or tissue sloughing will occur. For instance, if there is a contracture of the quadriceps, motion is not possible unless this structure is elongated by some plastic procedure.

The after treatment is begun as soon as there is healing of the wound. This requires the constant surveillance of the surgeon with the aid of an efficient physiotherapist. Active motion is encouraged, and passive movements daily increased. An intelligent co-operation on the part of the patient is essential, for unless voluntary motion is secured within thirty days there is little chance of success. In lower extremities weight bearing is allowed as soon as tenderness has subsided, which materially aids in restoring function.

We fully realize that our results in the knee are far from 100 per cent; but each year our proportion of successes are greater and we believe that the procedure should be employed in all suitable cases. In no case has the part become more impaired. In most of those cases, in which bony ankylosis recurred the deformity was corrected and the function of the part, as a whole, thus improved. Consequently, we feel encouraged in the results which have been attained, and hope, within time, to report a greater percentage of restored function to ankylosed knees. In other joints chances of success are excellent provided the proper after treatment can be carried out; and from our personal experience we feel that a distinct advance has been made in this field of surgery.

(Editor's Note: Dr. Campbell exhibited a series of motion pictures, showing results of his treatment in numerous cases).

**HAVE YOU PAID YOUR DUES
FOR 1923?**

"RATIONAL VACCINE THERAPY IN EAR INFECTIONS."*

L. Herbert Lanier, M. D., Texarkana.

Our aim in treating disease of any character should be, to do it as scientifically as possible and not empirically, as we often do. We should also endeavor to hasten a cure in all cases. This can be accomplished in treating dozens of diseases with bacterial vaccines. While it has been my privilege to see many general diseases treated and cured with bacterial vaccines, yet my personal experience in their use has been limited to treating diseases of the eye, ear, nose and throat. Some still say "that the bacterial vaccine treatment of disease is in the experimental stage, therefore I will not use it." This attitude is wrong. My advice to those who do not use vaccines is to try it and learn a valuable lesson.

It has been found by experiments that normal blood varies but little in opsonic strength, while in individuals who are infected the opsonic strength is materially lessened because few bacteria are prepared for ingestion by the leucocytes. The opsonic index is increased by injecting into the infected person dead cultures of the particular type of micro-organisms (preferably from his own body) from which he is suffering. Of course, we do not at present possess a specific antitoxic serum to fight each infective malady. According to the laws so well established by Pasteur, the ideal method would be, to oppose each infective disease with a specific serum. But certain vaccines do possess, in addition to their purely specific action, therapeutic properties that may be utilized in infections.

It cannot be doubted that a specific serum, such as that of diphtheria, will have more chance of success in a diphtheritic infection; but the same serum is sometimes found to be active against other infections, as by streptococci, staphylococci, meningococci, colon bacilli, etc.

An animal actively immunized against a toxin as potent as that of diphtheria or tetanus will have all the anatomic elements placed in a state of defense distributed, each after its manner, in the circulation antitoxins, immunism and antibodies. It is easy to conceive that the serum of such an animal will

* Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

be rich in elements of defense of all sorts, and injected into an individual with an infective malady, no matter what the nature, will assist him to overcome the particular ailment.

In ear affections it is not to be supposed that the practitioner will content himself with general specific or paraspecific treatment, neglecting local measures. If he should employ several measures without knowing exactly which has been the curative agent, it would be better than to run the risk of the vaccine acting inadequately or too late.

In all infections of the ear a polyvalent vaccine may be injected as per indications. If improvement is not marked after three or four injections, during the interval there is time to cultivate the micro-organism present in the ear. For example, the staphylococcus. An autogenous vaccine is made and injected replacing the paraspecific treatment by active immunization with a sterilized culture of the staphylococci.

EAR INFECTIONS.—Of the infections of the external auditory meatus, furunculosis is the most important. Furuncles in the canal are very painful and often run a prolonged course when immunotherapy is not employed. In the less severe types the staphylococcus albus is usually the offending organism. While in the more severe types the staphylococcus aureus is found, combined stock vaccines of staphylococcus aureus and albus cause these cases to yield readily if treatment is started early before pus formation has occurred. I use full sized doses of staphylococcus vaccine (Sherman No. 22) increasing the dose to 600,000 within three to four inoculations given four days apart for three or four weeks to build up an immunity and prevent a recurrence.

ACUTE OTITIS MEDIA.—The importance of therapeutic immunization in acute middle ear infections is not sufficiently appreciated. These infections are serious and the early use of a mixed stock vaccine containing the organism that cause dangerous mastoid infections is the safest and surest method of avoiding the development of mastoiditis.

Whether the streptococcus the pneumococcus, the friedlander bacillus, the micrococcus catarrhalis or the influenza bacillus or all of them are causing the infection, it is due to an extension of the infective process from the naso-pharynx to the middle ear. Staphylo-

cocci gain entrance to the tympanic cavity by migration from the auditory canal after there is an opening through the drum-head, and in time the staphylococcus often overgrows and displaces the original infecting organisms so that it may be the only organism found. Of course, various other organisms may be found with an open drum-head.

In the treatment of suppurating otitis with vaccines it is necessary to take into account this difference in the bacterial flora of the early acute stages and the chronic conditions. In the acute conditions early treatment is of great importance both as a means of relieving pain and to avoid destructive and dangerous extension of the infection. Of course, the drum should be lanced if there is bulging; but if a vaccine has not been given for the existing "cold," it should be employed at once for the ear complication. Because streptococci and pneumococci are the principal offenders, a stock vaccine containing at least these two organisms should be employed. The combined vaccine for colds serves every purpose.

I use (Sherman's No. 40), I give 0.3 Mil. (c. c.) for the initial dose and if no material reaction develops at the point of inoculation a larger dose is given next day, then inoculations at three day intervals with gradually increasing doses until 1 Mil. (c. c.) is given at dose for two weeks or more. When the drum-head is open, should the patient not be progressing favorably under the stock vaccines, an autogenous vaccine should be prepared.

CHRONIC SUPPURATIVE OTITIS MEDIA.—A condition more often neglected than any other perhaps, has the staphylococcus aureus and albus as its most frequent pathogenic factors. For this reason a combined staphylococcus aureus and albus vaccine in doses of 200,000,000 to 400,000,000 of each organism may be given for several inoculations and, if prompt improvement does not take place, cultures for a bacterial examination should be made and an autogenous vaccine prepared and administered.

In many of the old cases some necrotic bone is present in some obscure place. These cases are not benefited by vaccines at all. There are also cases when the tissue cells in the infected area have created a tolerance to the injecting organism to a point where immunizing responses can no longer be aroused. This should emphasize the importance of al-

ways employing vaccines in the acute cases, where good results are more often obtained.

In the past few years the advances have been so rapid in serum and bacterial therapy, that for one who has tested the potency of these remedial agents a tendency to be over-enthusiastic is always noticeable; but if one were limited to a statement of the trend of scientific and clinical research still a great deal of illuminating and valuable data may be presented, which if given due consideration may lead to greater conquest in our battle against diseases of the ear.

In a series of cases treated during 1920 and 1921, we have found in various infective ear diseases more favorable results after injections of autogenous vaccines than were obtained after injections of stock vaccines or serum, both the specific and paraspecific products having been used rather extensively.

Dr. George H. Weaver has made some interesting observations concerning serums and vaccines and his preference for autogenous vaccines prompts me to quote him, at length. He says: "Streptococcus vaccines should always be autogenous. The importance of this is more apparent, as the study of streptococci by more refined methods has shown that there are many strains of streptococci which differ among themselves in essential immunologic peculiarities. A vaccine prepared from one strain might be worthless against an infection by another one."

Vaccine therapy for various pathologic conditions of the ear presents a broad field for research and experimentation and one replete with possibilities. Its value has been proven by numerous investigators, and I am convinced that vaccines should be more generally employed as a curative agent by otologists everywhere, if the working theory of opsonic therapy were more generally understood and appreciated by those who practice otology.

Resistance to infecting organisms is really a problem of immunity. Many a person may enjoy the best of health and yet have a low resistance to certain kinds of disease germs. If an infection by such organisms should take place, violent acute diseases are liable to develop; or if a sufficiently immunizing resistance does not develop, the infection may become chronic.

That bacterial vaccine inoculations have a marked therapeutic value in ear infections is now well established; and in these ear cases it is found that improvement usually

takes place soon after giving the vaccine. Mixed infections being the rule, a combined bacterin should be employed. Sherman's No. 36 or 38 is the combination that is most extensively used. Treatment is started with about 0.2 mil. or 3 minims and the dose gradually increased to 1 mil. or more. Inoculations should be made at from five to seven-day intervals.

The beneficial influence from the bacterin treatment in these cases is usually so pronounced that there is no difficulty in attributing the improvement to the vaccine; but from this it should not be inferred that absolutely every case will respond so favorably. We find that in every chronic infection sometimes the immunizing faculty will not respond adequately to vaccines, either autogenous or stock preparations. Wright explains this on the theory that repeated infections or auto-inoculations have occurred so often that the immunizing mechanism is partly worn out.

Realizing that prolonged chronic infections may produce a condition in which the resisting forces will no longer respond adequately, vaccine treatment should be employed in all these cases in the early stages, before the ear tissue has become crippled and the immunizing resistance impaired. From this, however, it should not be inferred that old chronic cases will not be benefited. In many of these cases most beautiful results are obtained.

A chronic ear infection is strictly a local affair where the involved tissues do not build up sufficient resistance to eliminate germs, nor does the localized infection make proper impression so as to develop localized activity for antibody formation. By injecting the same kind of killed germs under the skin that are present in the ear infection, antibodies, are formed in the tissues where the inoculation was made. These antibodies are absorbed into the general circulation and, after reaching the infected area, aid the local tissues in destroying the germs causing the infection. The only way to fully appreciate the therapeutic value of bacterins in the treatment of these cases is to use them, not occasionally as a last resort, but regularly on all classes of cases. When thus used it will soon be found that the results are so much better than from the application of drugs alone, that bacterins will be relied upon more than formerly.

DISCUSSION.

Dr. R. H. T. Mann (Texarkana): I rarely ever use stock vaccines in conditions of the ear. The autogenous vaccines may be of some benefit in certain cases, however. There are so many of these cases in which you have a chronic discharge, due to faulty drainage, and in a great many of them there is necrotic bone which necessarily has to be removed before a cure can be expected. Where there is no condition of this kind, an autogenous vaccine may be of some benefit.

Recently I have had two cases of a pneumococcic infection in which a vaccine was not used, but the serum was in one case. I don't know just what the result was from the pneumococcic serum which was injected in this patient. I will give you a history of the cases briefly.

A boy, the son of a physician, developed a mastoid abscess with involvement of the lateral sinus. We did a mastoid operation upon him, also ligated the internal jugular vein. The boy's condition continued very serious. We isolated the cause of the infection and found it to be pneumococcic. Dr. Murry assisted with the operation. We used a good deal of pneumococcic serum. The patient finally made a complete recovery.

I have had the same thing happen in a similar case in which no pneumococcic serum was used. I had in another patient a fatal result; but this patient came very late before any pneumococcic serum could be used. The patient died, after having had a mastoid operation and the ligation of the internal jugular vein.

Dr. Murry, who assisted me with this patient, is here, and I would like for him to say a word about the pneumococcic infection; because he knows more about this than I do. As a rule, I am not very enthusiastic over vaccines.

Dr. R. Caldwell (Little Rock): Five or six years ago I became enthusiastic over vaccines for colds, and ear and sinus infections; but I have almost given it up. Whether I am right or wrong, time will tell. It is hard, in sinus or ear infections, to know whether your results are due to your vaccine or not. I say this because I have had two very bad sinus infections; one the sphenoid sinus, another the anterior ethmoid cells, and maxillary sinus, that absolutely quit draining the day I was going to give the vaccine. If I had procured and given the vaccine the day before drainage stopped I should have had two wonderful results. As I say, I haven't used enough of it to voice a conclusion.

Take, for instance, our chronic catarrhal discharges from the ear that are not due to bone necrosis. We otologists know that these cases get better; stay better for an indefinite time; then begin to discharge again. With a little local treatment they get better again. Sometimes get better without any treatment. It is very difficult for me to decide in these cases.

In acute otitis media and acute mastoiditis, I don't think we ought to give bacterins. As to stock bacterins or autogenous bacterins, of course, I am very much in favor of the latter. I don't want to discredit the doctor's efforts, for I am for any man that tries to solve this problem—to work out something—so that we shall not have these otitis media troubles and these sinus troubles, and we can cure these patients without any operative procedure.

Dr. H. E. Murry (Texarkana): In regard to the case that Dr. Mann just mentioned, the case

started off with an acute mastoid following otitis media. I was called in on the case after he had ligated the internal carotid. The case was essentially septic in type, with temperature and all of the other symptoms and signs. We took a blood culture, and found that the boy was infected with the pneumococcic organism. Just what type that was we were not able to say; because we didn't feel that we were justified in taking the time to culture that and find out just which one it was. We ordered polyvalent serum from St. Louis immediately, and administered that in 20 c. c. or 30 c. c. doses into the boy's vein. He was about seven years old. We administered in all 150 c. c. This was six days before patient left the hospital, and all the acute symptoms having subsided and case well on his way to a complete recovery. The boy has not had any symptoms since, and is now, so far as we can tell, entirely well.

Vaccines, autogenous vaccines included, I have just about given up hopes for them except in certain selected cases. For instance, I do considerable gastro-enterological work. We would drain the gall-bladder and would make an autogenous vaccine from the infection of the gall-bladder, and expected considerable results from that. So far as I can tell, beneficial results have been only slight, if any at all.

The vaccines, of course, in the chronic gonorrhea cases, are pretty well known to every man who treats that condition. But just as the doctor said, the treatment is logical and at times it does give some results. I feel that we are justified in using the vaccines in every case where we don't have some other more active method of treatment.

Dr. Lanier, in response: I can say that the results obtained in the case that Dr. Murry and Dr. Mann treated seem to bear me out in the statement that vaccines specific, or the polyvalents are very necessary and they are worthwhile.

Answering Dr. Caldwell about the use of vaccines in acute cases, I would like to ask him if he would use anti-toxin in a case of diphtheria after he had discovered the patient had diphtheria in the acute stage. It is just as reasonable to suppose that it would be as efficacious in other infections if you use the specific culture from the specific micro-organism, as it is to suppose that diphtheria anti-toxin is efficacious in combating the invasion of micro-organisms causing diphtheria. Or, should we delay the use of tetanus anti-toxin in acute cases? Of course, we should like to use it as a prophylactic; we would like to use it before the symptoms appear, if we could correctly anticipate the appearance of it. But certainly we will use it when we have the symptoms; so we should use it in our infections.

Recently Dr. Fletcher of Mena, brought a case to me and asked me to be ready to do a mastoid operation in the case of a lady who had not slept for 36 hours; temperature 103; a very rapid pulse; very much exhausted; and suffering extreme pain. Upon examination I found tenderness, swelling and redness and an edematous condition behind the ear; and a bulging drum-head which had not yet been perforated. In this case, I believe, a great many would have done a mastoid operation. I made an extensive incision, or rather a free incision posteriorly into both the inferior and superior quadrant of the drum-head, got good drainage and administered about 300 million of mixed catarrhal vaccine. The results in this case were remarkable, as it has been in similar cases that I have treated. It just simply raises the opsonic

index of the blood; it increases the resisting power; it favors the formation of anti-bodies to combat infections, and that is what we want.

Of course, in this particular case you might say that the good results were due absolutely to the free drainage. It may have been. It didn't do any harm to give this vaccine in this acute infection. I believe that we raised the opsonic index and resisting power of the blood. She was better able to combat the infection, and the symptoms, malaise and the general systemic infection were very much lessened. Patient made a very rapid recovery.

I believe that we are justified in these cases in using the vaccines instead of so often resorting to surgery. I believe that we shall eventually use more vaccines, when we learn that they are really worthwhile. We certainly cannot expect to get good results from vaccines unless we use them; and we should not condemn them unless we have given them a trial or unless we have valid grounds upon which to base our judgment.

PEPTIC ULCER WITH PRESENTATION OF A PATIENT.*

J. H. Phipps, M. D., Clarendon.

Peptic ulcer is a very common complaint, and a great many patients suffer of it for years, thinking that they have "indigestion," before their complaint is diagnosed. I have seen cases that were not diagnosed until carcinoma had developed, and the patient in a dying condition.

As peptic ulcer is caused by the caustic action of the gastric juice on some part of the gastric wall, or the digestive action of the gastric juice on a circumscribed area of the stomach wall, the patient complains of a hungry nervous feeling, from one to three hours after meals. He complains of heart-burn and gas on the stomach. If he takes active exercise, or rides on a wagon, or horseback, he invariably complains of pain. If he takes food often, the gnawing and hungry feeling will not annoy him so much; or, if he has heart-burn, bicarbonate of soda will give relief. The patient will go on for six months sometimes without much discomfort. However, the attacks come oftener and more severe all the while. He may complain for a number of years before he goes to a physician for treatment. I treated a patient a few weeks ago that had complained of her stomach for four years, and had never consulted a physician until after she had taken her bed. I found the pylorus obstructed with a carcinoma, and she lived only a few weeks.

*Read before the Forty-seventh Annual Meeting of the Arkansas Medical Society, Little Rock, May 17-19, 1922.

Fifteen years ago I treated a man for stomach trouble of twenty-five years standing. However, I blush to say that I didn't have the least idea what the nature of his stomach trouble was. He complained of pain in the epigastrium and belched lots. He always complained more than usual when he plowed very rocky ground. He began to grow worse fast, and eventually called on a surgeon, who diagnosed his case cholelithiasis, and operated; but found a duodenal ulcer. Several doctors, including myself, had treated this man for "indigestion," but none of us had the least idea what was causing the indigestion. I want to say right here, that the word "indigestion" as well as "congestion," covers a multitude of ignorance. We formerly used the words more than we do now. At one time we called most all pain in the belly, indigestion, or congestion, depending on the severity of the pain.

The first patient that I ever treated, that had peptic ulcer was a lady thirty years old. I am frank to say that I didn't have the least idea what the cause of her trouble was. She complained of a hungry, fainty, sick feeling from two to three hours after eating, and would have to eat from five to six times a day to get any rest. She very often had to get up at night and eat, which would give her comfort and she could go back to sleep. She went to several doctors for treatment, none of whom diagnosed her case peptic ulcer. Some of us diagnosed her case hysteria. She moved to Oklahoma with the hope of being benefited. As I have never heard from her since she moved to Oklahoma, I don't know whether she was benefited physically or not.

TREATMENT.—If peptic ulcer is recognized early, and the proper treatment given energetically, the results are generally gratifying. If it were not for the corrosive action of the gastric juice, a gastric ulcer would be as easily relieved as an ulcer anywhere on the body. In all cases we have an hyperacidity of the stomach, and this should be closely watched and an alkali given to overcome it.

After we have made a diagnosis of peptic ulcer, all food and water should be withheld from the stomach, and the patient put to bed. Saline solution should be given per rectum. This treatment should be continued for forty-eight hours. After which the patient should have an ounce or two of milk and cream every hour from early morning until eight or nine o'clock at night. Ten grains each of bicar-

bonate of soda and calcined magnesia, alternated with subnitrate of bismuth and bicarbonate of soda, should be given half way between each feeding.

This treatment should be kept up for several days, with the addition of some of the cereals, such as well cooked rice, oat meal and cream of wheat. As the patient grows better the feedings should be put further apart with the addition of more food to each feeding. As a rule the patient should be kept in bed for from three to six weeks, and under the care of his physician for a year or more.

If there is much gastric pain, a teaspoonful of calcined magnesia will usually give relief. If there should be secondary carcinoma, or if there is good reason for believing that there is a carcinoma developing, or if there is a perforation into the free peritoneal cavity, or if there is a pyloric obstruction, perigastric abscess, a copious hemorrhage, or more or less constant oozing of blood, or perigastric adhesions, hour glass stomach and copious continued secretion complicating pyloric obstruction, surgery should be the treatment.

I am glad to be able to present to this medical society a patient who is a sufferer of peptic ulcer.

Mr. J. R. Edwards, Roe, Ark., age 62. Native of Georgia. He has lived in Arkansas for the last 34 years. Occupation, watchmaker. Six years ago he abandoned watchmaking and engaged in truck farming, which he is engaged in at present.

CLINICAL HISTORY.—About 18 months ago he began to complain of a gnawing pain in the epigastrium from one to three hours after meals. Pain intensified when he did active work, or when jolted from riding on a wagon or horseback. Pain has steadily grown worse ever since he was first afflicted. Occasionally he complains of pain at night. He complains of pyrosis a great deal, which is relieved by taking bicarbonate of soda. By taking food he can usually relieve the hungry gnawing feeling. During the last six months pain has been more acute, and occasionally he has to take a narcotic to get relief. He has never vomited blood.

Mr. Robert Lowe, Roe, Ark., aged 48, native of Kansas. Has lived in Arkansas 25 years. Occupation, farmer.

CLINICAL HISTORY.—First complained of stomach twelve years ago, and has complained of occasional pain in epigastrium ever since.

He has always complained more in the spring of the year at long intervals. He has no discomforts at all. Has felt little heartburn, and when cramping pains come, it is usually from five to six hours after eating, or at night.

X-RAY EXAMINATION.

CLINICAL FINDINGS.—Nothing more than tenderness in the epigastrium.

Lowe Howard, Roe, Ark., referred by Dr. J. H. Phipps, Roe, Ark.; gall bladder; stomach.

Several films through this patient's gall bladder region were taken. These do not show evidence of gall stones or of a thickened gall bladder.

Fluoroscopic examination of the organs within the thorax did not show pathology.

Swallowing and filling of the stomach were normal. Peristalsis began immediately and was very active, as many as five waves being seen on the stomach at once. The stomach was hypertonic, was cow-horn shape with the greater curvature located about four inches above the umbilicus. No defects in gastric outline were found. There was a constant irregularity in the outline of the duodenal cap which was present on the fluoroscopic screen and is present in the seven views of the pyloric end of the stomach that were taken. There was a point of tenderness over the duodenal cap.

At the end of 5 hours the stomach was entirely empty, the meal being located in the terminal portion of the ileum; only a small portion having entered the caecum. Because of the hyperperistalsis and hypertonicity that was present it is believed that there is a slight delay in the emptying time of the stomach due to interference with the passage of the meal through the first part of the duodenum.

Findings in this examination are a hypertonicity and hyperperistalsis of the stomach with a slight delayed emptying time and a constant deformity of the duodenal outline. These findings I believe sufficient to warrant a positive diagnosis of ulcer of the duodenum.

DISCUSSION

Chairman Cargile: I will appoint Drs. Ellis, Brookshear and Smith to examine this patient and report findings.

REPORT OF COMMITTEE.

Of course, as you all know, any man who has had any experience in gastro-duodenal ulcer, or gall stones, for that matter, any physical ex-

amination you make doesn't cut much figure. We were unable to get any information except as was here given by the essayist.

In this condition a correct history of the case means more than any other one thing, perhaps. This is an exceptionally good x-ray examination of barium for that stomach, and it is one of the few cases in which a man could make a diagnosis, absolutely, without any history or any other examination at all except a fluoroscopic or x-ray examination. These findings are so characteristic that it is practically self-evident, and, it is one of the few cases in which a man, who has had a reasonable amount of experience in interpreting x-ray pictures, could make a diagnosis, without any history of the case at all.

From this viewpoint alone we do not have any hesitancy in saying that this patient has a duodenal ulcer. The man who made the plates certainly did excellently well.

Dr. W. D. Rose (Little Rock): The opinion has long prevailed that the clinical history of peptic ulcer is absolutely characteristic, and so it is in well-developed peptic ulcer, in which the diagnosis can frequently be made from the history alone.

As we are going further in gastroenterological work, I believe we are diagnosing more peptic ulcers early. I believe these ulcers are of more frequent occurrence than we formerly thought. I believe we have peptic ulcers of varying grades of severity, from the simple which usually gives few symptoms to the well-developed ulcer which gives the characteristic picture which has been for years recognized as the clinical picture of peptic ulcer.

In making our fractional gastric analysis we very frequently recover blood cells from the stomach of a patient presenting no other symptoms save a hyperacidity and moderate fullness of the epigastrium after meals. It is possible that these are cases of peptic ulcer, which if untreated would probably progress to the stage of a well-developed ulcer. On the other hand, there are probably many cases of simple ulceration which heal, with proper dieting, many of them perhaps without seeing a physician. In the light of our present knowledge it would seem that peptic ulcer is altogether a more frequent disease than was formerly thought.

Dr. J. H. Phipps (in response): I am indebted very much to Dr. Rhinehart for making this x-ray picture for me. He did it through courtesy to me, as I was going to present the case to the medical society.

I think Dr. Rose understood me to say that they should be put on treatment for six weeks or more. I said they should be put to bed for at least six weeks, and treatment continued, and the patient kept under observation of the doctor a year, or as long as he thought it was necessary.

However, I have never found treatment for peptic ulcer or duodenal ulcer satisfactory, simply because we can not get the co-operation of the patients. When they begin to feel better they get up and go to work and discontinue their treatment and eat whatever they want, and, as a rule, the ulcer goes on from bad to worse. Eventually carcinoma develops and the patient dies without an operation.

CREDENTIALS OF DELEGATES.

All delegates and alternates attending the Hot Springs meeting, May 2, must present properly signed credentials when they register. Blanks for this purpose have been furnished the secretary of each county society.

IMPORTANT.—Delegates and officers register on blue cards. Members, white. Visitors, buff.

CONSTIPATION TREATED BY THE EXCITATION OF THE ANAL REFLEX.

The use of the defecation reflex through the spinal cord is a novel aid in the treating of constipation advocated by Professor W. A. Newman Dorland, of Chicago, in the March, 1923, issue of the *International Clinics*. This reflex can be artificially excited in a very large proportion of patients, within fifteen to twenty seconds, by resorting to the following procedure. A folded sheet of toilet-paper is laid over the anus; the patient relaxes the sphincters completely and bears down, while with the index finger of the right hand she gently makes a series of rapidly broken compressions, about ten or twelve or less, directly over the anus. On ceasing this motion there will immediately follow a desire to defecate, which should be aided by a gentle bearing down. It has been estimated that the period of time elapsing between the anal stimulus and the initial reflex response is about 0.02 second. It must be borne in mind that holding taut the rectal sphincters will completely abolish the defecation reflex, since this involves a strong contraction of all the muscles of the pelvic floor, which action results in immediate inhibition of the defecation reflex. Dr. Dorland believes that if this simple procedure is carefully carried out at a regular daily hour, preferably in the early morning, the average case of constipation will be relieved and a regularity of body-habit established that will work wonderfully for the physical benefit of the patient. Laxatives, purgatives and cathartics undoubtedly have their place in the treatment of constipation, but their use should be restricted as largely as possible, and should not usurp the preferable methods of regulation of the bowels by the adoption of carefully selected diets, the observance of proper hygiene, the performance of daily exercise of various appropriate kinds, and the cultivation of the normal body reflexes.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

A NEW AND USEFUL MAGAZINE.

We wish to welcome Number One, Volume One, of the latest magazine, "Hygeia," published by the American Medical Association. It is an altruistic venture in the interest of public health. Its aim is to reduce the morbidity and the mortality rate to the lowest possible figures. It hopes to thus obtain the utmost co-operation of the medical profession with the intelligent public.

Attention is called to the wonderful results obtained in twenty years in reducing the deaths from tuberculosis practically fifty per cent, the rate being 202 per 100,000 of population in 1900 against only 114 in 1920. Since the introduction of diphtheritic anti-toxin in 1894, the death rate from diphtheria has fallen from 100 per 100,000 of population to 15. The fact that tuberculosis was contagious and the transmission by slow degrees to the public of that fact, coupled with the preventive measures adopted to avoid its spread, and the extensive use of anti-toxin in diphtheria both as a remedy and immunizer foreshadow the possibility of the final elimination of those two diseases. The public, however, must be educated to the importance of co-operation with health officers and general practitioners. That is the only way in which complete victory over communicable disease can be finally achieved; and that is one of the aims of the new magazine.

The initial number has articles about health and disease, advances in medical science in 1922, Food Poisoning, Walking as an Art, The Control of Bodily Processes by Glands, Meat Eating and Cancer, Music in the Treatment of the Sick, Louis Pasteur and His Work, The House Fly, Patent Medicines (exposing some of the fakes dangerous and otherwise), Health Reviews, Care of the Body, cartoons and even a page or two of humor.

It is printed and excellently printed on fine paper with a photo of Pasteur on the front cover and deserves a large circulation, not only among members of the profession, but also among the laity. In fact, it is a magazine that will be enjoyed by intelligent readers of all stations and occupations.

The subscription price is three dollars a year. It is published by the American Medical Association, 535 North Dearborn street, Chicago.

THE ANNUAL MEETING.

The annual meeting of the Arkansas Medical Society will be held at Hot Springs, May 2, 3, and 4. Every member in the State should make it convenient to attend. He should be making his plans right now so that nothing shall interfere with his attendance. It will be worth his while. The program assures that there will be something to learn. There will be notable speakers. There will be papers from competent physicians and surgeons. In fact the program is of such a varied character that the indications are that in interest it will equal, if not exceed, any ever presented in the annals of the society.

The program is published in this issue. Read it carefully and then ask yourself if you can afford to miss it.

There will be social entertainment also of various kinds, with special program which surely will attract and please the visiting ladies.

Dr. Jabez N. Jackson of Kansas City will make an address on "Cancer of the Breast, Factors Influencing, Best Surgical Results." Dr. Jackson is an authority on cancer and his address will be instructive and interesting.

Dr. William Engelbach of St. Louis, a most able internist, will talk on "Results of Treatment of Ductless Gland Disorders."

The afternoon of the second day will be devoted entirely to clinics, as stated in a previous issue of the Journal. More time will be devoted to clinics than ever before and an abundance of material will be presented. Dr. J. B. McElroy of Memphis will have charge of the Heart Clinic. The Syphilis Clinic will be conducted by several Hot Springs physicians. In view of the fact that Hot Springs is the Mecca of syphilitic patients from all over the United States, the physicians have had greater opportunities than those of probably any other city in America to study the scourge of syphilis in all its aspects, and the clinic should prove of unusual value to the profession generally.

With a dozen or more papers to be read by physicians of high standing and long experience, it would seem to be certain that this year's meeting with its clinics, as well as papers, will be of vital importance to every member who wishes to keep fully abreast of the times. Such a program deserves a large

attendance; in fact a record-breaking attendance. It would be discouraging to the Program Committee and the Committee on Arrangements to find their excellent work fail to draw an enthusiastic gathering. Even if you have to make some sacrifices, don't miss the 1923 meeting. You will regret it if you do not attend.

COUE AND SOON FORGOTTEN.

Dr. Coue has gone back to that dear France and with him has gone the daily publicity given him gratis by newspapers all over the country. The great American public seizes with avidity every new cult and ism that comes along. The newspapers naturally cater to the public taste. All one hears now of Coue are jests about "every day, every way," and so forth, applied to any subject whatever. Such is fame based on newspaper publicity. A ten day wonder and then it is supplanted by the latest scandal, the King David stuff, the Ku Klux fight in the courts and other matters of the moment.

There was a modicum of truth in the Coue idea. That the mind has a certain effect on the physical well or ill being is beyond all question. The morbid, the hypochondriac may be cured by mental treatment. Fancied ills disappear under mental suggestion if only the patient has faith. But this is nothing new. Every physician is fully aware of the effect of faith in his treatment on the part of the patient. It is half of the battle in certain cases. But Coue did not originate the idea. Mesmer taught it in the last century. It is the basic idea of Christian Science and faith healing, so-called. That it was known to the ancients is well known. Even some of our Episcopal ministers—and they are considered among the most learned theologians—today test the laying on of hands as practiced by the Apostles. With what measures of success depends wholly on the nature of the trouble and the degree of faith of the patient. But not Coueism, nor Christian Science, nor laying on of hands even will cure organic diseases, nor prevent the spread of contagious or infectious diseases. Those matters belong to the realm of real science, medical science, and the sooner the people generally understand that plain fact the better for the communities everywhere. All the various isms and cults have their well-defined limitations.

PROGRAM

FORTY-EIGHTH ANNUAL SESSION OF THE ARKANSAS MEDICAL SOCIETY

HOT SPRINGS, MAY 2, 3, 4, 1923

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Second Councilor District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White Counties. Councilor, J. L. Jones, Searcy. Term of office expires 1924.

Third Councilor District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff Counties. Councilor, E. D. McKnight, Brinkley. Term of office expires 1923.

Fourth Councilor District—Ashley, Bradley, Chicot, Cleveland, Drew, Desha, Jefferson and Lincoln Counties. Councilor, A. Isom, Dumas. Term of office expires 1924.

Fifth Councilor District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union Counties. Councilor, F. E. Baker, Stamps. Term of office expires 1923.

Sixth Councilor District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier Counties. Councilor, Wm. Gibson, Nashville. Term of office expires 1924.

Seventh Councilor District—Clark, Garland, Grant, Hot Spring, Montgomery, Saline and Scott Counties. Councilor, W. T. Wootton, Hot Springs. Term of office expires 1923.

Eighth Councilor District—Conway, Faulkner, Johnson, Perry, Pope, Pulaski and Yell Counties. Councilor, G. L. Henderson, Conway. Term of office expires, 1924.

Ninth Councilor District—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren Counties. Councilor, R. H. Huntington, Eureka Springs. Term of office expires 1923.

Tenth Councilor District—Benton, Crawford, Franklin, Logan, Madison, Sebastian and Washington Counties. Councilor, E. F. Ellis, Fayetteville. Term of office expires 1924.

COMMITTEES

SCIENTIFIC PROGRAM

J. B. Dooley, Little Rock, chairman; W. T. Wootton, Hot Springs; W. R. Bathurst, Little Rock.

SCIENTIFIC EXHIBIT

D. A. Rhinehart, Little Rock, chairman; S. F. Wolf-
ermann, Fort Smith; J. H. Chesnutt, Hot Springs.

MEDICAL LEGISLATION

J. P. Runyan, Little Rock, chairman; W. F. Smith, Little Rock; S. B. Hinkle, Little Rock; E. E. Barlow, Dermott; J. B. Wharton, El Dorado; Thad Cothorn, Jonesboro; Earle H. Hunt, Clarksville; J. D. Southard, Fort Smith; R. L. Smith, Russellville; S. J. Hesterly, Prescott; E. P. McGehee, Lake Village; L. Kirby, Harrison; G. K. Stevens, Newport; E. D. McKnight, Brinkley; H. H. Parr, Eudora; Wm. Breathwit, Pine Bluff; J. A. Bogart, Forrest City; E. F. Ellis, Fayetteville.

NECROLOGY

O. E. Jones, Newport, chairman; C. J. March, For-
dyce; George S. Brown, Conway; F. T. Murphy,
Brinkley; W. B. Lawrence, Batesville.

HEALTH AND PUBLIC INSTRUCTION

C. W. Garrison, Little Rock, chairman; F. C. Ma-
guire, Augusta; H. A. Ross, Arkadelphia; Robert
Caldwell, Little Rock (ex-officio); Wm. R. Bathurst,
Little Rock (ex-officio).

CANCER RESEARCH

Dewell Gann, Jr., Little Rock, chairman; Wm.
Breathwit, Pine Bluff; J. C. Hughes, Hoxie; J. L.
Greene, Hot Springs; O. H. King, Hot Springs; Wm.
R. Bathurst, Little Rock; Rufus Martin, Warren.

INFANT WELFARE

Morgan Smith, Little Rock, chairman; H. H. Nie-
huss, El Dorado; S. C. Tapscott, Jr., Searcy; A. R.
Bradley, Morrilton.

WORKINGMEN'S COMPENSATION

J. M. Lemons, Pine Bluff, chairman; R. F. Darnall,
Little Rock; H. N. Street, Lonoke; J. S. Moore, Arka-
delphia; L. D. Reagan, Little Rock; A. W. Strauss,
Little Rock; B. C. Logan, Morrilton.

HOSPITALS

A. C. Shipp, Little Rock, chairman; R. C. Dorr,
Batesville; John Stewart, Booneville; C. S. Holt, Fort
Smith; R. M. Blakely, Little Rock.

COMMITTEE ON REVISION OF CONSTITUTION AND BY-LAWS

H. H. Rightor, Helena, chairman; W. A. Snodgrass,
Little Rock; R. H. T. Mann, Texarkana; S. M. Gates,
Monticello.

COMMITTEE ON GORGAS MEMORIAL FUND

George B. Fletcher, Hot Springs, chairman; O. L.
Williamson, Marianna; J. S. Westerfield, Conway; C.
A. Rice, Rogers; C. S. Early, Camden.

STATE BOARD OF MEDICAL EXAMINERS OF THE ARKANSAS MEDICAL SOCIETY

J. A. Bogart, Forrest City; J. T. Palmer, Pine Bluff;
J. W. Walker, secretary, Fayetteville; J. C. Swindle,
Walnut Ridge; W. F. Smith, president, Little Rock;
H. A. Ross, Arkadelphia; W. H. Toland, Nashville.

ARKANSAS STATE BOARD OF HEALTH

C. W. Garrison, Little Rock, State health officer;
O. L. Williamson, Marianna; C. F. Crosby, Heber
Springs; Leonidas Kirby, Harrison; H. R. Webster,
Texarkana; H. L. Montgomery, Gravelly; S. A.
Southall, Lonoke; F. O. Mahoney, El Dorado.

ANNOUNCEMENTS

The registration desk will be located in the corridor of the Majestic Hotel. Ladies of the local committee will assist those desiring to register. Mrs. J. L. Greene, chairman entertainment for ladies.

COMMERCIAL EXHIBIT

Promises to be of high grade, and will be found in the Majestic Hotel.

SCIENTIFIC EXHIBIT

This exhibit will be conducted by the Committee on Scientific Exhibits, D. A. Rhinehart, chairman; S. J. Wolfermann, and J. H. Chesnutt. Suitable space for this exhibit has been arranged in the Majestic Hotel, and our members are urged to attend and lend their encouragement to the committee's labors and assist in developing this attractive addition at our meetings.

REGISTRATION

It is important for all members on arriving to register at the secretary's desk and receive the official program and a badge.

NOTICE

All papers read at this meeting are the property of the Arkansas Medical Society, and as soon as read should be handed to the secretary.

HOUSE OF DELEGATES

The regular annual meeting of the House of Delegates of the Arkansas Medical Society will be held on May 2, 1923, at 10:00 a. m., at the Majestic Hotel.

ROBERT CALDWELL, *President*,

WM. R. BATHURST, *Secretary*.

Meeting called to order by Robert Caldwell, president.

Appointment of the Credentials Committee and their report.

Calling roll of delegates.

Adoption of the minutes of the Forty-seventh Annual Meeting as published in the July issue of the Journal of the Arkansas Medical Society.

Appointment of Reference Committee.

President's address to the House of Delegates.

REPORT OF COMMITTEES

Scientific Program—J. B. Dooley, chairman.

Scientific Exhibit—D. A. Rhinehart, chairman.

Medical Legislation—J. P. Runyan, chairman.

Necrology—O. E. Jones, chairman.

Health and Public Instruction—C. W. Garrison, chairman.

Cancer Research—Dewell Gann, Jr., chairman.

Infant Welfare—Morgan Smith, chairman.

Workman's Compensation and Social Insurance—J. M. Lemons, chairman.

Hospitals—A. C. Shipp, chairman.

Arrangements and Entertainment—C. Travis Drennen and A. H. Tribble.

Report of the Council—Thad Cothorn, chairman.

Report of the secretary.

Report of the treasurer.

Selection of the Nominating Committee.

Selection for appointment on Board of Medical Examiners.

The following counties compose the First, Fourth and Fifth CONGRESSIONAL DISTRICTS:

First District—Clay, Greene, Craighead, Mississippi, Crittenden, Cross, Poinsett, St. Francis, Lee, Phillips, Woodruff.

Fourth District—Crawford, Logan, Sebastian, Scott, Polk, Sevier, Howard, Pike, Little River, Montgomery, Miller.

Fifth District—Franklin, Johnson, Pope, Yell, Conway, Faulkner, Perry, Pulaski.

Miscellaneous business.

MEETING OF THE COUNCIL

The Council of the Arkansas Medical Society will meet at noon with luncheon at the Majestic Hotel immediately following the adjournment of the morning sessions.

FORTY-EIGHTH ANNUAL MEETING

First Presbyterian Church

GENERAL SESSION

WEDNESDAY, MAY 2, 1923, 2:00 P. M.

Calling of the Society to order—Robert Caldwell, president.

Invocation—Rev. Marion S. Monk, pastor Central Methodist Church.

Address of Welcome for the City—Hon. Harvey A. Jones, mayor.

Address of Welcome for the Profession—Dr. E. M. McKenzie.

Response to the Addresses of Welcome on behalf of the Arkansas Medical Society—Morgan Smith, Little Rock.

President's Annual Address—Robert Caldwell, Little Rock.

"Cancer of the Female Breast, Factors Influencing Best Surgical Results"—Jabez N. Jackson, Kansas City, Mo.

"Results of Treatment of Ductless Gland Disorders" (with lantern slide demonstration)—William Engelbach, St. Louis, Mo.

9:00 P. M.

President's reception. Entertainment.

THURSDAY, MAY 3, 8:30 A. M.

House of Delegates—Unfinished business.

9:30 A. M.

MEMORIAL SESSION

First Presbyterian Church

Conducted by Committee on Necrology, O. E. Jones, chairman; C. J. March, Geo. S. Brown, F. T. Murphy, and W. B. Lawrence.

DECEASED MEMBERS

J. C. Cleveland, Bald Knob, June 3, 1922.

Ewell M. Pollett, Jonesboro, June 16, 1922.

Moses Cline Hughey, Marianna, May 28, 1922.

Chas. Sanford, Board Camp, July 27, 1922.

Charles M. Roberts, Hot Springs, August 29, 1922.

Arthur Clifford Jordan, Pine Bluff, August 29, 1922.
 John W. Melton, Benton, November 30, 1922.
 Henry Hodgen Kirby, Little Rock, December 9, 1922.
 Zaphney Orto, Pine Bluff, January 22, 1923.
 Boulanger Gwaltney, Traskwood, February 19, 1923.
 Alexander Everett Harris, Little Rock, March 7, 1923.

SCIENTIFIC SESSION

10:30 A. M.

"The Medical Practitioner and the American Society for the Control of Cancer"—J. E. Rush, New York City, Field Director, American Society for the Control of Cancer.

"Development of the Treatment of Tuberculosis"—A. C. Shipp, Little Rock.

"Blindness From the Use of Wood Alcohol"—H. Moulton, Fort Smith.

"Uncommon Findings in Post-Mortem Examinations"—S. F. Hoge, Little Rock.

THURSDAY, 2:00 P. M.

Heart Clinic—J. B. McElroy, Memphis. (Presentation of cases of all forms of cardiac lesions, simple cardiac involvement; compensation and failing compensation; vascular and renal complication.

Syphilis Clinic—Lumbar punctures; intravenous therapy, etc. Abundance of clinical material will be on hand.

PUBLIC SESSION

(To be conducted by the Committee on Health and Public Instruction, C. W. Garrison, chairman; F. C. Maguire and H. A. Ross.)

First Presbyterian Church.

8:00 P. M.

"Public Health Topics"—C. W. Garrison, State Health Officer, Little Rock.

"Reward of Courage"—J. E. Bush, New York, Field Director, the American Society for the Control of Cancer.

SCIENTIFIC SESSION

FRIDAY, 8:30 A. M.

"Encephalitis"—with report of cases, and results of treatment with Rosenow serum—Earle Hunt, Clarks-ville.

"Encephalitis—report of two cases and review of the subject"—H. E. Murry, Texarkana.

"Crushing Injuries of the Knee Joint"—W. F. Smith, Little Rock.

"Fractures of the Upper Extremity"—H. R. McCarroll, Walnut Ridge.

"Hernia of Small Intestines Through Uterus"—L. Kirby, Harrison.

"Malignant Papillary Cystic Tumor of the Ovary"—with report of case—R. C. Dorr, Batesville.

"Hyperchlorhydria Bedside Diagnosis and Treatment"—E. L. Miller, Crossett.

"Acute Dilatation of the Stomach—Post Operative"—T. J. Stout, Brinkley.

FINAL MEETING OF THE HOUSE OF DELEGATES

FRIDAY, MAY 4, 1:30 P. M.

Roll call.

Report of Nominating Committee.

Election of officers—

President.

First Vice-President

Second Vice-President.

Third Vice-President.

Secretary.

Treasurer.

Five Councilors.

Further new business.

Adjournment.

FINAL GENERAL SESSION

(Friday afternoon, May 4, immediately after adjournment of the House of Delegates).

Calling meeting to order by Robert Caldwell, president.

Report of Nominating Committee, and election.

Reports of other committees.

New business.

Selection of place of next meeting.

Any scientific papers not previously presented.

Adjournment *sine die*.

Personal and News Items.

Dr. and Mrs. Hubert Work, Secretary of the Interior, recently visited in Little Rock and while here were guests of Dr. and Mrs. Robert Caldwell and Dr. and Mrs. R. F. Darnall.

Governor T. C. McRae has appointed Dr. Robt. Caldwell, Little Rock, and Dr. J. R. Dale, Texarkana, members of the honorary board for the State Hospital for Nervous Diseases and Hospital Dairy Farm.

Dr. D. C. Walt, Little Rock, will be out of his office indefinitely on account of illness of Mrs. Walt. His address for the present is 242 N. E. 24th street, Miami, Fla.

Drs. B. C. Logan of Morrilton; S. J. Hesterly, Prescott; F. T. Murphy, Brinkley; Geo. S. Brown, Conway; P. V. Wagley, De Queen; Dr. and Mrs. H. H. Niehuss, El Dorado, visited in Little Rock this month.

Members of the State Cancer Control and Cancer Committee of the State Society will

give a dinner in honor of Dr. J. E. Rush, Field Director American Society for the Control of Cancer, during the Hot Springs meeting. Further information will be announced later.

The Salt Lake County Medical Society is arranging for the entertainment of visitors who may be able to stop over en route, either going to or coming from the meeting at San Francisco. The stop-over here can be made inexpensive. Our society has already appointed committees to greet and assist in making arrangements to see the city and, if possible, some of the surrounding territory, which may include wonderful mountain drives; a visit to Saltair, which is situated on Great Salt Lake; and a visit to the great copper mines in this vicinity.

Large parties intending to make this stop-over are requested to give us notice as far in advance as possible as to the number in party and length of time of stop-over. Any inquiries relative to this matter may be directed to Secretary Dr. Floyd F. Hatch, Deseret Bank building, Salt Lake City, Utah.

The Committee on Scientific Exhibit needs help. It is burdened with the job of preparing a scientific exhibit for the coming meeting of the Arkansas Medical Society. This job can be finished successfully only with the aid of those members of the society who have material to place in the exhibit.

The committee needs records of unusual cases; pathological specimens; material illustrating public health topics; reports and records from hospitals and sanatoria; but most of all it needs those things that will illustrate papers presented in the scientific sessions of the meetings.

What have you to offer? Please communicate with the member of the committee nearest you. Let us unite and make this exhibit a real feature of the coming meeting.

D. A. Rhinehart, Little Rock, *Chairman*.

S. J. Wolfermann, Fort Smith.

J. H. Chesnutt, Hot Springs.

This is the story of Johnny McGuire,
Who ran through the town with his trousers
on fire;

He went to the doctor's and fainted with
fright,

When the doctor told him that his end was in
sight.

—Jack-o-Lantern.

County Societies.

SEARCY COUNTY.

(Reported by Sam G. Daniel, Sec.)

The Searcy County Medical Society met in Marshall, March 15, 1923.

The following officers were elected for the ensuing year: President, Edward W. Wood; Vice-President, James A. Henley; Secretary and Treasurer, Sam G. Daniel; Delegate to State meeting, James A. Henley.

ASHLEY COUNTY.

(Reported by L. C. Barnes, Sec.)

The Ashley County Medical Society met March 27, 1923, in Hamburg, at the office of Dr. W. S. Norman. Meeting called to order by the President, Dr. Chas. E. Spivey.

Dr. E. L. Miller of Crossett, presented a very interesting paper on "Hyperchlorhydria Bedside Diagnosis and Treatment." This paper was discussed freely.

It was decided to meet every sixty days the remainder of the year.

MISSISSIPPI COUNTY.

(Reported by F. D. Smith, Sec.)

The Mississippi County Medical Society met in regular session at the courthouse in Osceola, Tuesday, April 10, 1923.

Present: McCall, J. R. Johnson, R. L. Johnson, Owen, Sanders, Saliba, Sims and Smith.

The essayist for the evening being absent, an extemporaneous discussion and report of cases were enjoyed by all present.

The next meeting will be at Blytheville the second Tuesday in May.

JEFFERSON COUNTY.

(Reported by J. T. Palmer, Sec.)

The Jefferson County Medical Society met in regular session April 3, 1923, with the following present: Lemon, Gill, Breathwit, Cornelius, Vines, Shelton of Wabbaseka, John, Lowe, Jenkins, Woodul and Palmer.

A number of clinical cases were reported, giving a real live meeting.

A motion was introduced and carried that the Jefferson County Medical Society donate five dollars to the Gorgas Memorial Fund. The secretary was ordered to send the amount to Dr. Geo. B. Fletcher, Hot Springs.

WHITE COUNTY.

(Reported by Sam J. Allbright, Sec.)

The White County Medical Society met in regular session at Searcy, April 5th, 2:00 p. m.

Present: Hudgins, Jones, Peeler, D. W. Sloan, J. R. Sloan, Little, Purnell, Hassell, Henderson, Allbright.

Visiting doctors: H. C. Jones and R. N. Buckmaster.

A paper on "Diagnosis and Treatment of Influenza," was read by D. W. Sloan. Discussion was general and interesting.

It was decided to have the next meeting at Judsonia, June 7th, at 8:00 p. m.

DESHA COUNTY.

(Reported by W. H. DeClark, Sec.)

The Desha County Medical Society met at McGehee, March 21, 1923.

The following officers were elected for the ensuing year: H. T. Smith, McGehee, re-elected president; W. H. DeClark, McGehee, re-elected secretary; R. E. Applewhite, Watson, delegate.

Dr. R. E. Applewhite, Watson, was elected to membership.

It was unanimously agreed to hold regular monthly meetings during this year, on the third Wednesday of each month; all meetings to be held at McGehee.

Dr. A. Isom of Dumas, will present a paper at next regular meeting, subject to be announced later.

CRAWFORD COUNTY.

(Reported by S. C. Grant, Sec.)

The Crawford County Medical Society met at Van Buren in the K. P. Hall, March 22, 1923. O. M. Bourland, president, presiding.

Present: Parchman, Blakemore, Bennett, Bourland, Dibrell, Grant, Wigley, Kirkland, Reves, Trice. Visiting physicians from Fort Smith: Holt, Taylor, Dorsey, Parks, Haynes.

The minutes of the previous meeting were read and approved.

The following officers were elected for the ensuing year: S. D. Kirkland, Van Buren, president; W. R. Reves, Alma, vice-president; S. C. Grant, Mulberry, secretary; J. A. Wig-

ley, Mulberry, treasurer; delegate to the State Society, W. R. Reves, Alma; alternate, S. C. Grant, Mulberry.

Dr. Bennett read an interesting paper on the "Treatment of Diabetes," which elicited general discussion.

Drs. W. R. Reves and H. C. Dorsey were asked to read papers at the April meeting.

The Society adjourned to the dining room of the First Baptist Church, where a delightful luncheon was served by the ladies of the Baptist Church.

Book Reviews.

Gonorrhea and Impotency.—Modern Treatment by Edwin W. Hirsch, S. B., M. D. Published by The Solar Press, 209 S. State Street, Chicago.

This little volume formulates a plan of treatment that, if followed, will lead to success in the management of gonorrhea and its sequelae. It is illustrated.

The Elements of Scientific Psychology.—By Knight Dunlap, Professor of Experimental Psychology in Johns Hopkins University. Illustrated. Published by C. V. Mosby Company, St. Louis. Price \$3.50.

This book will be of extreme value to physicians who wish to become conversant with the foundations of modern psychology. The book contains sixteen chapters with an appendix on "Mental Deficiency and Mental Disease."

The Riddle of the Rhine.—By Victor Lefebure, Officer of the Order of the British Empire (Mil). With a preface by Marshal Foch, and an introduction by Field Marshal Sir Henry Wilson, Bart. Chief of the Imperial General Staff. Published by E. P. Dutton & Company, 681 Fifth Avenue, New York.

This book presents the last word on chemical warfare and the scientific and economic conditions that underlie it. It is quite helpful to interpret the developments in the Ruhr and other international problems with a more enlightened vision.

Physiology and Biochemistry in Modern Medicine.—By J. J. R. Macleod, M. B., Professor of Physiology in the University of Toronto. Assisted by Roy G. Pearce, A. C. Redfield and N. B. Taylor. Fourth edition. With 243 illustrations, including nine plates in colors. Published by C. V. Mosby Company, St. Louis, Mo. Price \$11.00.

This volume is an advanced text in physiology for those about to enter upon the clinical instruction of medicine. It deals with

the present-day knowledge of human physiology in so far as this can be used in a general way to advance the understanding of disease. Each chapter has been revised and certain chapters have been rewritten.

Physical Diagnosis.—By W. D. Rose, M. D., Lecturer on Physical Diagnosis, and Associate Professor of Medicine in the School of Medicine, University of Arkansas. Published by C. V. Mosby Company, St. Louis, Mo. Price \$8.50.

This splendid volume presents the principles of physical diagnosis, together with the physical findings in the diseases of the respiratory and circulatory systems. Part One, refers to the thorax; Part Two, the abdomen, and Part Three, the head, neck and extremities. It contains 319 illustrations. Its popularity can be seen by the appearance of this new third edition. A great deal of modern material is added and an entire revision of the section dealing with physical examination of the circulatory system, and other changes, with the result of making one of the best books on the market covering the entire subject of physical diagnosis.

The Heart in Modern Practice. Diagnosis and Treatment—By William Duncan Reid, A. B., M. D., Chief of Heart Clinic at the Boston City Hospital. 32 Illustrations. Published by J. B. Lippincott Company, Philadelphia, Pa. Price \$5.00.

This book is uniquely arranged to present heart disease, according to its etiologic types, rather than by anatomical lesions which may be common to various types of heart affections. The new classification is from an etiological, a functional, and a structural viewpoint.

The action of syphilis on the heart is described in a single chapter, instead of in one place for aortic insufficiency, in another for the myocardial changes, etc., thus bringing together all of the data pertaining to one subject in one place.

DO NOT FAIL TO VISIT THE SCIENTIFIC EXHIBIT OF THE ARKANSAS MEDICAL SOCIETY, MAJESTIC HOTEL, HOT SPRINGS, MAY 2, 3, 4.

Niehuss-Bush Sanitarium

EL DORADO, ARKANSAS



STAFF

H. H. NIEHUSS, M. D.,
Obstetrics and Gynecology

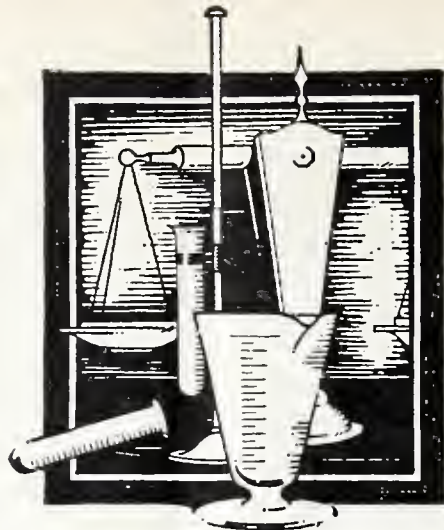
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THE JOURNAL

OF THE

Arkansas Medical Society

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XIX.

LITTLE ROCK, ARK., MAY, 1923

No. 12

Original Articles.

A CONSIDERATION OF THE NON-VENEREAL, INFECTED PROSTATE.*

William Turner Wootton, M. D., Hot Springs
National Park.

With your permission I desire to submit a study of three hundred and fifty cases of infected prostate as taken from my records just as they came to the office, and add a few comments that seem pertinent to me.

In this series of cases there were:

One hundred and thirty-five, or 39 per cent, frankly due to gonorrhea, the patient applying for relief from that condition or some symptom referable to it.

One hundred and twenty-one, or 35 per cent, were non-gonorrheal, applying for treatment for some other condition, such as rheumatism.

Ninety-four, or 26 per cent, were non-gonorrheal, but had a history of a past gonorrhea and sought relief from a condition not referable to gonorrhea.

Of these latter, 61 per cent applying for relief from a condition not referable to gonorrhea; 115, or 33 per cent, sought relief from what they called rheumatism which included lumbago, sciatica, myalgia and arthritis.

One hundred, or 28 per cent, sought relief from a condition other than gonorrhea or rheumatism such as syphilis, malaria, toxemias, or were picked up on routine examination for baths, etc.

It would seem from this high percentage of non-venereal cases that a focus of infection rests in the prostate very frequently in so-called rheumatic conditions and that we cannot afford to overlook this gland because the

patient gives a negative venereal history. In a surprisingly large number of these cases no examination of the prostate had previously been made, and I think not one of those who gave a negative gonorrheal history.

The ages ranged from 17 to 77 years, the average was 41 years.

Eighty-eight were under 30 years.

One hundred and three between 30 and 40 years.

Seventy-four were between 40 and 50 years.

Forty-seven were between 50 and 60 years.

Thirty-eight were over 60 years.

If there is any significance in this table I think it is in the fact that there were only eighty-five cases, or 24 per cent, over fifty years of age, and 265 cases, or 76 per cent, were men under fifty, which might again lead us to consider the prostate in another light than merely a gland to become normally hypertrophied in the aged. Added to this the fact that there were 61 per cent of the total cases infected not seeking relief from such and without symptoms referable to it is sufficiently significant to make the examining of the prostate a routine practice in my office.

I have come to look upon the prostate in man and the glands of the cervix in woman to be the focus of at least 90 per cent of the disseminated infection occurring from the waistline down. However, I think this might vary where a man is seeing more acute cases whereas with mine the chronic vastly predominate. Also we do often have a secondary infection in the upper extremities from the prostate, but, I think not as frequently as below.

Everyone knows how to express the fluid from the prostate, but some of us may overlook the fact that you will bring forth large quantities of mucus, seminal fluid and debris on the first attempt without a true reading of the interior findings and that the second

* Read before the Tri-State Medical Society, Memphis, Tenn., December, 1922.

or third massage gives a much better fluid for microscopical examination. We have found this so constantly a fact that, where possible, we make use of the third as a preference when corroborating a diagnosis of infected focus.

You may expect to find a chronically infected prostate rather larger than normal, soft and doughy with areas of fluctuation possibly, and very generally some tenderness; but these conditions are not always constant. Quite a few are normal in size and to the touch and if you are sure there is a focus of infection, from the patient's symptoms, you may be rewarded by finding pus and bacteria after several days of careful scrutiny of the expressed secretion under the glass.

Our commonest findings are staphylococci, colon bacilli and a non-virulent streptococci with often many nondescript germs. No prostate is non-gonorrheal until we repeatedly fail to find diplococci, either intra or extracellular. However, we have yet to fail in corroborating the patient's history as to non-infection, well as I know you cannot always depend upon what they may tell you.

After a gonorrheal prostate becomes subacute it is the rule for it to become a mixed infection and the further it progresses the fewer the diplococci and the greater the number of other invading germs. Whether there is a stage where the diplococci play out entirely, leaving the field to the more robust infecting agents, I do not know; but it is possible that stage may be reached. On the other hand, gonococci may lie dormant or semi-dormant in the glands of the cervix for many years and may be considerably metamorphosed, yet they still show up as diplococci.

Many of those in this series with Neisserian infection, seeking relief from their venereal trouble, also had vesiculitis, arthritis or disseminated foci, and many of the non-venereal cases had other foci of infection such as pyorrhea, dental caries or apical abscesses, necrotic tonsils or cholecystitis. Indeed, we look on these non-venereal cases as being secondarily infected from glands or foci above and later becoming a focus for further spreading of the infection. We would certainly expect selective action of the infecting organisms to have some bearing upon this location. Of course, it is needless to say it is essential that each and every focus must be taken care of.

Just as you often have an exacerbation of symptoms from extracting infected teeth, so do we have an increase in symptoms during the early stage of massaging the chronic prostate; but rarely have to discontinue. It is our custom to give the chronic prostatitis daily treatment, and even then, they will average four to five weeks in clearing up.

As far as I have been able to learn, this is not the kind of prostate that goes on to hypertrophy, but remains infected, large and spongy until cleaned up. There seems very little transition to fibrous tissue, consequently we do not refer these cases to the urologist for surgery. It is often very gratifying to see elderly men regain their vesical function from massaging a large soft prostate after they have left home to avoid what they were told was inevitable prostatectomy. Evidently the size only was considered and not the character.

In closing, I should like to stress the desirability of examining the prostate in every patient, regardless of his past history, when he complains of symptoms referable to a focal infection.

THE MEDICAL PRACTITIONER AND THE AMERICAN SOCIETY FOR THE CONTROL OF CANCER.*

J. E. Rush, M. D., Field Director,
American Society for the Control of Cancer.

Among the most important public health problems confronting the medical profession today is that of cancer control. It is possible to make a division of public health movements into several groups, depending on the amount of educational work which must be carried out before the program can be successful. In one group we find such diseases as typhoid fever, malaria, and yellow fever which may be controlled simply by educating a few individuals, who possess the necessary power in a community, to place the program in operation after they have been shown the desirability of such a procedure. This type of activity is relatively simple because it depends upon the education of a few individuals. Unfortunately, the diseases that can be controlled in this manner are among those which

* Read by title before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

usually do not exact from the populace the greatest economic toll.

Another group of diseases may be effectively dealt with through police power and here again we depend on the education of a few members of any given community. For the most part the diseases which may be controlled by this means we refer to as "communicable" and usually they can be very effectively dealt with by placarding, isolation and quarantine.

There is another group of diseases which are not communicable and in which the education of but a few members of the community is not sufficient to affect the mortality rate. Here, we find cancer, which depends for its ultimate control upon the education of every single adult of the community, with reference to the early signs and symptoms of the disease, for only in its early stages is cancer curable. With the present attitude of the public to seek medical advice only when they are aware of distressing symptoms, they must be told that early cancer is usually painless and that proper treatment cannot be instituted until they have sought the advice of a physician.

The medical profession is interested in all types of medicine whether preventive or curative. As a matter of fact, there really is no hard and fast line of demarkation between preventive and curative procedures, any more than there is a dividing line between the metals and the non-metals. The medical profession is interested in all problems of public welfare; but when it comes to matters concerning public health they are the only ones who through tradition and training are capable of handling the problems which present themselves for solution. It is the only profession at the present time that is engaged in real preventive medicine and it is the profession of election for this type of work. Usually public health movements have been initiated by the medical profession, but in many instances the work has passed into the hands of the laity, because the members of the medical profession have been preoccupied with other important problems.

What we have said with regard to the attitude of the medical profession towards public health work clearly emphasizes the need of control by the medical profession of all public health movements. The profession is particularly interested in the problem of can-

cer control, not only because it is of great humanitarian interest, but because of the further fact that cancer is one of those conditions in which it has been clearly demonstrated that the medical profession is the only one capable of offering a solution. While sanitary engineers, epidemiologists and others may be of great value in the conduct of specific public health movements, their training and experience does not make them capable of helping in cancer control. The slogan of the American Society for the Control of Cancer, "Early cancer is curable if you will but consult your medical practitioner in time," again clearly emphasizes that the physician is the only one capable of reducing the mortality from cancer.

Another interesting feature of the movement for cancer control is that the establishment of diagnostic clinics during National Cancer Week is of some educational value to certain members of the medical fraternity: because important points of differential diagnosis between early carcinoma of tongue, for example, and primary luetic ulcer, are demonstrated. The cancer movement in this respect, is one of the few that attempts to repay the physician for the great effort he has expended in its behalf.

It has been claimed by some of the unthinking individuals among the laity that preventive and curative medicine are diametrically opposed. They do not realize there is, in the last analysis, but little difference between preventive and curative measures. For example, all physicians take blood pressures and make urine analyses during the course of a pregnancy and not by the wildest stretch of the imagination can this be interpreted as a curative measure. It is a preventive measure pure and simple.

Through various educational movements which are now being conducted to instruct the public with regard to conditions which are definitely preventable the great mass of the people are gradually coming to realize that the physician must be looked upon as a teacher and advisor rather than one who is to be consulted only when symptoms of a diseased condition have manifested themselves. The physician, too, realizes that this teaching attitude is appreciated by the public; for by this means he is able to prevent premature deaths among his clientele. Not only does he spare the patient in question for future

usefulness, but, more important, he does not divorce the rest of the members of that particular family. The physician realizes that the most appreciative patient is one who, through early advice and proper instruction, has been saved from untold suffering and an untimely death.

All health movements, if properly managed and ethically controlled by the medical profession, will not only eliminate certain objectionable features present in some of them as now conducted by the laity, (who have no appreciation of medical ethics), but such activities will help consolidate the medical profession against the ever-increasing influence of the cults. It is true, that we as a profession, do not heartily approve of certain public health movements now in progress, because they do not conform to our ethical code. If they were controlled by the medical profession this objection would be removed.

It must be realized that the cults never would have existed had the medical profession taken a definite stand against them, but realizing that "Imitation is the sincerest flattery," we have allowed them to go on—to exploit the public until even the great mass of the people has recognized the lack of sincerity which prompted the various movements.

The proper extension of these ideas relative to organization in order to control public health problems contains within it the answer to the proponents of that most preposterous type of activity known as "State Medicine."

The organization for cancer control is dependent upon the activities of the medical profession; and therefore the units upon which the organization is built are the State and County Medical Societies. The whole movement has been endorsed and approved by practically all national, sectional, State and local medical and surgical bodies, because it is entirely controlled by the profession itself. In the perfected organization for cancer control, we have the ground work to handle other problems of a public health nature; be they ones already in existence or future ventures. By proper organization, too, we shall be in a stronger position to abort detrimental legislation, whether directed at us or to legalize the ignorant cults. A public health problem directed solely by physicians will do more to properly organize the medical profession than any other type of activity.

It has been pointed out that if we do not seriously consider the "scientific attainments" of the cults, then every preventable death is a reflection on us. It has been asserted that the fact that the patient did not come early enough to us for examination and advice is no excuse; that we, as the only logical profession engaged in the practice of the healing art, should have the undivided confidence of the public to such an extent that they will report to us what are very trivial matters and thus give us opportunity to institute proper procedures in time. In the vernacular of the street, it has been suggested that we should "sell ourselves to the public;" which, in other words, means that there is at the present time a great need of ethical publicity on the part of the profession. It really seems that this would, to a very great extent, increase our usefulness to the community in which we practice. If this be true, then no physician can be so busy that he cannot devote a small amount of time to help in the campaign for cancer education; because by so helping, he is not only advancing his own usefulness to his community, but is of the greatest value to his medical brothers and to his profession.

A few members of the laity have explained what they have interpreted as apathy on the part of certain of the medical profession toward preventive medicine, by emphasizing the fact that preventive medicine was diametrically opposed to curative measures. We, of the medical profession realize the fallacy of this. Let us consider an analogy from the field of engineering. Suppose that ten engineers were bidding on a contract to construct a road between two adjacent cities. Only one, could be successful; but would the others put obstacles in the way to prevent him from completing his task? The answer is apparent. They would not; for they would realize that when the public had seen the value of this road, they would demand similar ones in all other directions and hence the other engineers would have an opportunity to build some of them. I realize that the above example compares a business conducted purely for monetary return, to a profession which interests itself chiefly with humanitarian efforts, but the very few of the public who believe that all persons are actuated by ulterior motives should be answered. The good roads analogy applies directly to medicine, for the medical practitioner realizes that each time

the public is convinced that it is unnecessary for them to suffer with various ailments they demand the removal of others which heretofore they patiently tolerated. An example may illustrate this point:

A friend of mine who for many years was almost an invalid from recurrent attacks of what was then diagnosed as "inflammation of the bowel," and for which, at that time there was no known cure, was simply forced to allow the condition to exist which undermined his health and lowered his efficiency. At the present time because of the knowledge of the laity concerning chronic appendicitis he would know that an operation requiring him to be at a hospital for but two short weeks, would give him complete relief, and enable him to resume his life's work at a greatly increased efficiency.

Our medical ethics instituted at the time of Hippocrates admit of no change; but our interpretation of them may be broadened to meet the changing conditions, especially those which have been brought about during the past two or three decades. It may be necessary to change our ideas regarding proper nonpersonal publicity for the medical profession, as a whole, and for our State and county societies. In this connection I am reminded of the story of the young color-bearer at Gettysburg, who had advanced somewhat ahead of the lines, and when ordered back to his position by his commanding officer replied: "Bring the line up to the flag."

SAID JOSH HILLINGS.

When a man loses his health, then he begins to take care of it.—*Hygeia*.

WHAT'S A HEALTH EXAMINATION, ANYWAY?

Most people have had the experience of going to a doctor for an examination at some time in their lives, some have had to go many times. Usually they have gone because there was something wrong with them, pain, fever, a cough, a rash or what not, but anyway, something for the doctor to study, give a name to and prescribe for. But imagine the factory manager who waits for the machinery in his plant to break down before he gives thought to having it overhauled—how long would he keep his jobs? Is his machinery more important or more liable to accidents than that of your body? Don't you think it

would pay to have it overhauled before the breakdown comes and to see if the machinery is really being run efficiently?

In the June issue of *Hygeia*, Dr. Haven Emerson, professor of public health in Columbia University, gives reasons enough to convince the most skeptical that health examinations pay, not only in increased health, but also in dollars and cents. "It has grown to be a custom" for people who employ men and women in large numbers in shops and factories "to have each new employee examined to see if he or she is in sound health." And again, "Many of the unions are requiring an annual health examination of their members because they have found this the best way to prevent the illnesses which cost their sick benefit funds so much." If these people who are in big business find it worth while and economical, there is probably something to it.

TESTIMONIALS AND PATENT MEDICINES.

"The fallibility of human testimony is notorious. Although the power of observation possessed by most of us is poor, we are likely to become most positive in testifying to what we have seen or to what we think we have seen. Caution in expressing opinions is not a common trait. The Scotchman who could never be tempted into making an explicit statement was a specimen of an unusual type. It is recorded that on one occasion an attempt was made to get this cautious Caledonian to express himself without qualification. A flock of sheep, freshly sheared, was being driven past his house and he was called to the window and asked if it were not a fact that the sheep were sheared. His reply was that they seemed to be on the side he could see." Thus Dr. Arthur J. Cramp in the June issue of *Hygeia*. But, in addition to such testimony given in good if misguided faith, there are other forms that are more or less frankly purchased. Both varieties have been extensively used by the manufacturers of nostrums and patent medicines and have been accepted more or less at their face value by those who have not the information to realize their fallaciousness. Dr. Cramp gives illustrations which should convince the most devoted patent medicine addict of the fraudulence of many of the claims.

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WILLIAM R. BATHURST, SECRETARY-EDITOR
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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

OUR ANNUAL MEETING.

Dr. William Turner Wootton of Hot Springs was elected president of the Arkansas Medical Society at the Forty-eighth Annual Session held at Hot Springs, May 2-4, succeeding Dr. Robert Caldwell of Little Rock. Other officers elected were as follows: Dr. James O. Rush, Forrest City, first vice-president; Dr. Jesse C. Graves, Lockesburg, second vice-president; Dr. Sam J. Allbright, Kensett, third vice-president; Dr. Robert L. Saxon, Little Rock, treasurer (re-elected), and Dr. William R. Bathurst, Little Rock, secretary (re-elected).

Fayetteville was selected for the next annual meeting.

The most outstanding and most progressive step taken by the convention was the indorsement of the proposition to immunize school children against diphtheria just as vaccination is enforced to protect them and their communities from smallpox. Another important step was a resolution protesting against the action of the Veterans' Bureau in approving a plan of training of disabled veterans in the fallacy of chiropractic. The resolutions on these and other subjects will be found in full in this report.

The House of Delegates was called to order at the Majestic Hotel by Dr. Robert Caldwell, president, at 10:00 a. m., Wednesday, May 2, and the usual routine business was transacted, including reports of committees, appointment of committees and the reading of the president's message to the delegates.

The first general session was held in the First Presbyterian Church at 2:00 p. m. The Rev. Marion S. Monk, pastor of the Central M. E. Church, offered the invocation after President Caldwell had called the meeting to order. In the absence of Mayor Harvey A. Jones of Hot Springs, Dr. C. Travis Drennen delivered the address of welcome for the city and Dr. E. M. McKenzie welcomed the visiting physicians for the profession of Hot Springs. Dr. Morgan Smith of Little Rock, responded, in a most delightful and appropriate manner, to the addresses of welcome on behalf of the Arkansas Medical Society. This was followed by the introduction of our distinguished guests. President Caldwell then delivered his annual address, which will be published in full, with

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AMERICAN
Medical Association

SAN FRANCISCO,
CALIFORNIA

JUNE 25-29, 1923

editorial comment in a later issue of the Journal.

The scientific program was next taken up, consuming the remainder of the afternoon.

At 9:00 p. m. the president's reception was held and the delegates and visitors were entertained handsomely. The entertainments provided for the ladies were especially enjoyable.

A memorial session on the second day for the deceased members, a scientific session later, a clinic in the afternoon, an open meeting on Public Health at night, two general sessions on Friday and the meeting of the House of Delegates to receive reports and elect officers, closed a most successful meeting at which over two hundred and fifty registered outside of Hot Springs members.

The report of the various committees showed excellent progress made in the last year. The secretary's report showed a total membership of 1,148 for the year of 1922, with more than 1,000 members in good standing, having paid their dues for 1923.

Dr. Thad Cothurn of Jonesboro, and Dr. F. E. Baker of Stamps, were re-elected members of the Council. The new members elected are: Dr. Dewell Gann, Sr., Benton; Dr. T. J. Stewart, Wynne, and Dr. Leonidas Kirby, Harrison.

Following the report of the delegates to the convention of the American Medical Association, the following resolution was adopted:

RESOLUTIONS CONCERNING CHIROPRACTIC.

WHEREAS, the Arkansas Medical Society is informed that the Veterans' Bureau has approved the practice of chiropractic as a suitable calling for disabled veterans, by training such veterans as chiropractors at public expense; and

WHEREAS, Chiropractors assume as grave responsibility for the lives and health of the sick and the injured as do physicians, which responsibility, in the judgment of the Arkansas Medical Society, no chiropractic school fits, or can fit, its graduates to assume with safety to the patient or to the public; and

WHEREAS, Chiropractic itself is founded on an impossible and silly dogma, so easily shown upon reasonable inquiry to be such that adherence to it tends to discredit the mentality or the sincerity, or both, of those who follow it as a calling; and

WHEREAS, the chiropractic sect may be destroyed within a comparatively short time, through quarrels now in progress within it, and through a better understanding on the part of the

public of the absurdity of its pretensions, trained in it; therefore be it

RESOLVED, that the Arkansas Medical Society, having in mind the welfare of the public and of the veterans, respectfully, but forcibly, urge that training of veterans as chiropractors by the Veterans' Bureau be immediately discontinued, and protest against the expenditure of public money for the development of the chiropractic sect; and be it further

RESOLVED, that a copy of these resolutions be sent to the President of the United States; to the Select Committee to investigate the Veterans' Bureau, United States Senate; to the director of the Veterans' Bureau; to both our Senators and to each of our Congressman, and to the press; and be it

RESOLVED FURTHER, that the officers of the Arkansas Medical Society be authorized and empowered to do whatever may be necessary to effect the purposes of these resolutions.

Other resolutions were adopted as follows:

CONDEMNNS INSIDIOUS ATTACKS.

RESOLVED, that inasmuch as there has been persistent and concerted attacks by so-called medical clubs, medical committees, and a certain class of medical journals directly and indirectly against the Council of Pharmacy and Chemistry of the American Medical Association and the new Journal Hygeia. And, since there is evidence that this campaign is fostered and at least partially financed by certain proprietary interests to whom enlightenment of the public means financial death.

IT IS FURTHER RESOLVED, that the Arkansas Medical Society endorses unreservedly the work of the Council of Pharmacy and Chemistry, and that it is the opinion of the Arkansas Medical Society that the Journal Hygeia is the most important forward step in medical education ever undertaken by organized medicine; because the application of the principles of preventive medicine are entirely dependent on the education of the public.

IT IS FURTHER RESOLVED, that this resolution be published in the next issue of the Journal of the Arkansas Medical Society, and a copy be sent to the Journal of the American Medical Association.

UNWISE LEGISLATION CONDEMNED.

WHEREAS, the recent legislature of Arkansas did by special acts grant license to practice medicine in the State to incompetent men who could not pass the examination of the State Medical Board which is the legally constituted body to protect the public against the admission of unworthy and incompetent men to the practice of medicine;

WHEREAS, incompetent and unworthy practitioners of medicine are a source of great difficulty in the enforcement of the narcotic law. Violations of this law are truly alarming.

THEREFORE, BE IT RESOLVED, that this society does most earnestly protest against and condemn such unwise and dangerous legislation.

DIPHTHERIA IMMUNIZATION.

WHEREAS, diphtheria has been regarded for centuries as one of the most dreaded of the diseases of childhood.

WHEREAS, the introduction of antitoxin greatly reduced the mortality, the morbidity was not decreased until immunization by the use of toxin-antitoxin was discovered.

WHEREAS, the results obtained by Drs. Wm. H. Park and Abram Zingher of New York, in which they certify that among 350,000 children tested, and when Schick positive, injected, they have had no serious accidents or any bad after effects. After six years of continuous use they consider the method harmless and the immunity lasting, probably for life.

WHEREAS, reports show a remarkable falling off in number of cases in all places where toxin-antitoxin has been given. Parents and others having the care of children are realizing that it is a duty they owe the child, to protect it from diphtheria; therefore, be it

RESOLVED, that the Arkansas Medical Society hereby endorses the proposed immunization of all susceptible school children against diphtheria, as well as against smallpox.

The full report of the proceedings of the convention will appear in a later issue of the Journal.

SCHICK TEST FOR DIPHTHERIA.

The Schick test is made by injecting a tiny amount of diluted diphtheria toxin beneath the outer skin layer of the forearm. If the person is immune to diphtheria; that is to say, if his blood contains substances that neutralize the toxin that is injected, nothing results. But if his blood does not contain such substances a small rosy spot soon appears at the point of injection and persists for a few days. It causes little or no discomfort.

The value of the Schick test lies in its pointing out those who are susceptible to the disease and in thus enabling them to be immunized by toxin-antitoxin before an epidemic breaks out. It also enables those who are not susceptible (estimated as being from 20 to 30 per cent of children and 35 to 50 per cent of adults) to save the expense of immunization either before or during an epidemic. This is the second great step in the fight against diphtheria, the first being the introduction of diphtheria antitoxin, which came into general use about the beginning of the century and which caused the diphtheria death rate to drop from 43.3 per hundred thousand of the population in 1900 to 15.3 per hundred thousand in 1920, the latest year for which figures are available.

Notwithstanding the distance to be covered and the relatively high cost and difficulties of such work in rural districts, the value of the Schick test and of the toxin-antitoxin immunization, is so great that it should be included at all appropriate times in the programs of health departments. Particularly should this be done in rural regions, where the degree of susceptibility to the disease is greatest and where facilities for prompt and adequate treatment are most frequently lacking.

WHERE SOLONS MAKE MISTAKES.

The State Medical Examining Board, at a recent meeting held in Little Rock, very properly criticized the legislature for practically over-riding the State Medical Board in the matter of passing special bills licensing applicants to practice medicine. The matter is very simple. An applicant is refused license to practice. His application is declined because the board deems him not properly qualified and unfit to practice medicine and surgery. The applicant has a friend in the legislature—and friends in the legislature always desire the good will of voters and so are ready to oblige. The friend introduces a special bill under which the unfit and unqualified applicant is made a practicing physician, regardless of the State Medical Examining Board. It is easy to pass almost any local bill. It is a case of "you tickle me and I'll tickle you." Members from other counties are not concerned nor are their constituents affected by local bills. A large number of legislators have special bills they want passed, they vote for local bills from other counties and in return, expect votes for their own pet measures from representatives from those other counties. It is one of the great evils of the legislative system; in which strictly local bills should have no standing.

While the local bill procedure is wrong in principle, it is especially to be condemned when it is used to allow unfit medical men to practice medicine and surgery, after the only authority capable of judging has refused them that privilege. It is absurd to suppose that a majority of legislators, however brilliant otherwise, are capable of passing upon the qualifications of a physician. The members who vote on such a bill probably do not know the applicant and know still less of his fitness to practice. Yet he is turned loose to practice on unsuspecting patients with what disastrous results, the Lord only knows.

Readers of Dickens may remember the excuse of a druggist called for jury service in the case of *Bardell v. Pickwick*. He explained that his boy left in charge always got mixed up on prussic acid and some harmless fluid and that murder would result. When by special act the legislature licenses unfit practitioners to practice medicine and unfit applicants to practice pharmacy, it is time some measure be taken to deprive the legis-

lators of the right arbitrarily to usurp the functions of the State Medical Examining Board and the State Board of Pharmacy.

Members who attended the meeting were: Drs. W. H. Toland, J. W. Walker, J. T. Palmer, J. A. Bogart, J. C. Swindle, H. A. Ross and W. F. Smith.

They were entertained at dinner at the Hotel Marion by the retiring president, Dr. W. F. Smith.

Editorial Clippings.

OUR SPECIAL TRAIN TO THE AMERICAN MEDICAL ASSOCIATION MEETING.

The suggestion has been made by a number of members of the Southern Medical Association that the Association operate a special train to the American Medical Association meeting in San Francisco, June 25-29, for the convenience of its members and friends. After very careful consideration, it has been decided to do this, and it will be known as "Our President's Special," so named because, among others, it will convey the president of the Southern Medical Association, Dr. W. S. Leathers, and Mrs. Leathers. For this "Special" there has been chosen "The Scenic Route of the World," via Colorado Springs and Salt Lake City, the "quick, cool, scenic way to the Convention City."

The train, a train de luxe, will start from St. Louis, Tuesday, June 19, at 9:00 a. m. The itinerary will be along the banks of the picturesque Meramec River, through the foothills of the Ozark Mountains to Colorado Springs, where a day's stop will be made so that the scenic wonders of that region may be enjoyed. Immediately upon arrival of the train, sightseeing cars will be waiting to take the party over Colorado Springs, Manitou, Garden of the Gods, Cave of the Winds, etc., and then on that wonderful auto road to the top of Pike's Peak for sunset, returning to Colorado Springs in time for a late dinner at one of the famous hotels. Or those who wish may spend the time at Denver.

Leaving Colorado Springs, the trip leads through the Grand Canyon of the Arkansas, through the Royal Gorge, over Tennessee Pass (a point more than ten thousand feet above the sea level—the Continental Divide), through Eagle River Canyon and the Canyon

of the Grand River (through all this in special open-top observation cars).

A stop will be made at Salt Lake City to see that wonderful city. The organ recital at the Mormon Church, the largest pipe organ in the world, will itself be worth the stop-over, not to mention a swim in the great Salt Lake where one cannot sink. A trip by electric car will be made to Ogden and Ogden Canyon.

Leaving Salt Lake City, the train crosses the cut-off of the great Salt Lake and then through the famous Feather River Canyon, where many of the moving picture stars are filmed. At the World's Fair, in 1915, this route justly received the official award of "The Scenic Route of the World." On the train one thrill and delight after another will be experienced until the Convention City is reached on Sunday afternoon, June 24, at 5:45 o'clock.

Special round trip tourist rates may be secured for this trip, with privilege of returning by another route. Or, if a quick return trip is desired, one may come back over the same route.

Any physician who is a member of his county and State medical associations, whether a member of the Southern Medical Association or not, is most cordially invited to travel on "Our President's Special." If you are going to the American Medical Association meeting this year, use the Southern Medical Association's "Special," and on this long trip enjoy the good fellowship of a group of splendid men, many of whom will be accompanied by their wives and other members of their families, from the States comprising the Southern Medical Association.

For additional information write Mr. Purnell, Passenger Dept. Missouri Pacific Railroad, Little Rock.

Abstracts.

DIETARY CONSIDERATIONS IN INFANTILE ECZEMA.

Little has been written of prophylactic treatment. Believing in the essential dermatologic origin of eczema, Jesse R. Gerstley, Chicago (*Journal A. M. A.*, April 21, 1923), has attempted to bring the skin of the predisposed fair-haired, blue-eyed children to the

best possible state of nutrition. If the skin of an infant is maintained in good nutrition from the time of birth, and at the same time protected from irritants, eczemas rarely appear. The active dietetic treatment, from the standpoint of the pediatrician, is that which most rapidly brings the child to the best possible state of nutrition. No one particular diet helps; no one diet harms. The main consideration of the pediatrician is to place the welfare of the whole body above that of an individual organ. If he steadfastly adheres to this principle, local symptoms gradually disappear in proportion to improvement in the general condition. Indications for restriction of diet are only two. In an overfed baby with an oozing eczema, reduction of food intake is of value. In an infant whose eczema has become secondarily infected, reduction of diet, by depleting the tissues of fluid, dries the cheeks and leaves a field less fertile for bacterial growth. In these cases there is no particular reason for reducing one element of food. Restriction of quantity is all that is necessary.

Personal and News Items.

Dr. Lincoln Humphreys, U. S. Navy, has just completed writing a book on Hygiene and Physiology for the Samoan People.

REPORT OF COMMITTEE ON NECROLOGY.

(Benton County Medical Society).

At a regular meeting of the Benton County Medical Society, held at Rogers, April 9, 1923, it was resolved to record the obituary of a former much esteemed member of their society, Dr. Rufus S. Rice, to have same reported for publication in the Journal of the Arkansas State Medical Association and to express to his bereaved family the sincere sympathy of the members of the Medical Society with the recognition of a mutual loss.

At a recent meeting of the Pulaski County Medical Society an amendment was offered to the By-Laws which provides for Honorary Membership for any member of the Society who reaches the age of sixty-five years and has been a member for fifteen consecutive years. This shall be known as amendment No. 1, Chapter 1, of the By-Laws and shall read as follows: "Any member of this Society who has attained the age of sixty-five years,

who has been a member for fifteen consecutive years and who has retired from the active practice of medicine shall become an honorary member, upon his request, and be exempt from payment of all dues."

Obituary.

DR. RUFUS S. RICE—Dr. Rufus S. Rice died at his home at Rogers, Ark., on March 21, 1923, after a somewhat lingering illness, of uremic coma, the result of a chronic nephritis.

He was born on April 5, 1863, at Fayetteville, Ark., and was raised on a farm near the old battlefield at Pea Ridge, Ark.

He was a member of a very large family, having eleven brothers and two sisters, who grew up to adult age and of whom nine survive him. Two of his brothers, Clint A. Rice of Rogers, (who was affiliated with him in the practice of medicine at Rogers up to his death), and T. M. Rice of Avoca, Ark., being also physicians and members of the Benton County and Arkansas State Medical Societies. One brother is an attorney and the rest are farmers. He leaves to mourn his loss, a wife and two adult daughters, Mrs. Pearl Ball and Mrs. T. C. McNeil.

Dr. Rice attended a course of lectures at the Missouri Medical College at St. Louis and graduated in 1901 from the College of Physicians and Surgeons at St. Louis. He practiced medicine at Brightwater, Ark., for two or three years and from then until the time of his death was uninterruptedly engaged in the practice of medicine at Rogers.

He was for many years local health officer, pension examiner and medical director of the Mutual Aid Union; was ex-president of the Benton County Medical Society and vice-president of the Arkansas State Medical Society a few years ago. He was a constant advocate and supporter of organized medicine and always faithful in all duties assigned him.

He possessed a most amiable disposition, was truly interested in human folk, it was a genuine pleasure to him to do some act of kindness; he was benevolent to a fault and

if it can be said of anyone, it could of him, that he was a friend to all.

The community in which he lived so long suffered a great loss by his demise and we shall all miss him very much.

We know that the good he has done will live after him.

Sincerely,

W. J. Curry,

H. J. G. Koobs,

Guy Hodges,

Committee.

Dated at Rogers, Arkansas, April 10, 1923.

County Societies.

JACKSON COUNTY.

(Reported by M. L. Harris, Sec).

The Jackson County Medical Society met at Newport, February 16, 1923.

Present: Elton, Erwin, Jones, Best and McCurry.

Drs. Walter Stallings and M. L. Harris were elected to membership.

The following officers were elected for the ensuing year: Walter Stallings, president; J. H. McCurry, vice-president; M. L. Harris, secretary-treasurer; A. L. Best, delegate; C. R. Gray, alternate.

Dr. Walter Stallings was endorsed by the Society for County Health Officer.

MISSISSIPPI COUNTY.

(Reported by F. D. Smith, Sec).

The Mississippi County Medical Society met in regular monthly session, Tuesday, May 8, at Blytheville.

The following members were present: Hudson, Sims, Saliba, Tidwell, R. L. Johnson, I. R. Johnson, Stevens and Smith.

Dr. J. A. Luckett was elected to membership.

Dr. R. L. Johnson read a paper on typhoid fever and Dr. H. C. Sims one on malaria. Both papers were interesting and instructive and well discussed by those present.

INDEPENDENCE COUNTY

(Reported by M. S. Craig, Sec).

After taking six o'clock dinner at the tea room, as guests of the Batesville physicians,

the members of the Independence County Medical Society met in regular session at the county judge's office, Batesville, Monday evening, April 9th.

The following members were present: Jeffery, Bone, Burge, Robertson, Laman, Reaves, Rodman, Hinkle, Gray, Lawrence, Dorr, McAdams, Kennerly, Johnston and Craig.

Dr. W. B. Case of Oil Trough was elected to membership.

The secretary was instructed to invite the Jackson County Society to meet with the Independence County Society at Batesville, Monday evening, June eleventh.

The program for the evening was: "The Thyroid Gland and Its Secretion," by Dr. R. C. Dorr, "Pneumonia," by Dr. Paul Jeffery, and "Commoner Eye Diseases," by Dr. C. G. Hinkle. Each paper elicited much helpful discussion.

At a late hour the society adjourned, to meet Monday evening, June eleventh.

FRANKLIN COUNTY.

(Reported by Thos. Douglass, Sec).

The Franklin County Medical Society met Tuesday, May 8, at Branch.

Present: Gray, Gammill, King, Hudson, Akin, Miller, Hodges, Douglass and Williams. Dr. Williams presided.

Visitors: Drs. Bourland and Lucas of Van Buren and Dr. Harvey of Fort Smith.

The office of president was declared vacant and H. F. Williams was elected president; S. P. Gammill, first vice-president; W. C. Porter, second vice-president.

Dr. E. M. Gray read an instructive paper on "Croupous Pneumonia," which was well discussed.

Dr. Harvey talked interestingly about deep X-ray therapy.

Dr. Lucas told us about work in the Van Buren school for better nutrition of children.

The meeting of the Arkansas Medical Society at Hot Springs was reported by Drs. Bourland and Douglass.

In an endeavor to get the brethren of the southern part of the county more interested we are having a meeting every three months in that section. We will meet at Charleston in July, and expect a large gathering.

Book Reviews.

An Outline of the Pirquet System of Nutrition.—By Dr. Clemens Pirquet, Professor of Pediatrics at the University of Vienna, Austria. 16mo of 96 pages. Published by W. B. Saunders Company, Philadelphia. Cloth, \$2.00 net.

This small volume contains the principal facts and the practical application of the author's system of nutrition. A very instructive chapter is given on "Nutritional Treatment of Tuberculosis." It is the author's opinion that all the cures which in the course of time have been advised for tuberculosis, culminate in the therapy of feeding.

Lectures on Dietetics.—By Max Einhorn, M. D., Emeritus Professor of Medicine at the New York Post Graduate Medical School and Hospital, New York. 12mo of 244 pages. Published by W. B. Saunders Company, Philadelphia. Cloth \$2.25 net.

This book will appeal to nearly every physician as diet plays so important a part in health and disease. Chapters are written on the dietetic treatment of several ailments, the preparation of food for invalids; operative cases; diseases of the kidneys, etc. It contributes much toward the spread of knowledge of Dietetics.

Feeding, Diet and the General Care of Children.—A Book for Mothers and Trained Nurses.—By Albert J. Bell, A. M., M. D., Assistant Professor of Pediatrics, Medical Department, University of Cincinnati. Illustrated. Published by F. A. Davis Company, Philadelphia, Pa. Price \$2.00.

This book is decidedly educational, as not only the cause and symptoms have been outlined, but the "why" and the "wherefore" are explained.

Sample diet lists for the first twelve years of life, specifying varieties and definite amounts of food, with their food values, for age, weight and heights are included.

Diseases of Women.—By Harry Sturgeon Crossen, M. D., F. A. C. S. Clinical Professor of Gynecology, Washington University Medical School, and Gynecologist in Chief to the Barnes' Hospital. Fifth edition, revised and enlarged. Published by C. V. Mosby Company, St. Louis, Mo. Price \$10.00.

This splendid volume is devoted exclusively to the Diagnosis and Treatment of Diseases of Women. The important points are pre-

sented so clearly and systematically that they can be readily understood. This book contains 934 illustrations, including one color plate. This edition has been reset with extensive revision. The important advances in x-ray and radium have been considered, also the advances of endocrinology as it relates to gynecology.

Principles and Practice of Infant Feeding.—By Julius H. Hess, M. D., Professor of Pediatrics, University of Illinois, College of Medicine. Illustrated. Third revised and enlarged edition. Published by F. A. Davis Company, Philadelphia, Pa. Price \$4.00.

This book is presented to place in the hands of teachers and students a work on infant feeding to be used in preparation for clinical conferences.

Its contents is divided into nine parts as follows: Part one, General Considerations; Part two, Nursing; Part three, Artificial Feeding; Part four, Nutritional Disturbances in Artificially Fed Infants; Part five, Rickets (Rachitis); Part six, Spasmophilia; Part seven, Scurvy; Part eight, Acidosis; Part nine, Anemias of Infancy.

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Hot Springs National Park
President Arkansas Medical Society 1923-1924

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No. 1

Original Articles.

CANCER OF THE FEMALE BREAST, FACTORS INFLUENCING BEST SURGICAL RESULTS.*

Jabez N. Jackson, M. D., Kansas City, Mo.

To no pathologic condition has more intense consideration been given than to cancer. Backed by adequate endowment to facilitate the most exhaustive studies, numerous splendid laboratories of research are found in practically every civilized country. Hospitals devoted exclusively to the study and treatment of cancer have furnished abundant clinical opportunities. Individual effort has been no less tireless. And yet we are obliged to confess today that no exact solution has been found. On the other hand, if statistics are to be relied upon, cancer is apparently on the increase. These conditions impel one, therefore, to a careful consideration of those factors which *are known*, which *may be utilized* to improve our results today.

Theories of the cause of cancer have been propounded and exhaustive efforts made to prove. The idea of some germ or parasitic cause has been attractive, but proof has failed to yield to the tripod test of isolation, culture, and inoculative reproduction. The Cohnheim theory of tumor growth dependent upon awakened activity of dormant but not dead cells is fascinating, but likewise unproven. The researches of cellular chemistry have been invoked but with barren results.

Habits of life, environment, food, character—all have been the subject of extensive investigation. Today we do not know the cause of cancer. That continued causes of irritation, chemical, thermal, parasitic or microbic,

are probable excitant factors; that in certain types of tissue malignant changes are prone to occur justifying the designation, "pre-cancerous lesions." These are about the sum of our knowledge of the cause or origin of cancer. And yet this limited knowledge may be made most valuable at times in the prevention of later disease.

Likewise the subject of the best methods of cure has been one of almost exhaustless inquiry. Hope leads one to accept for trial at least almost any new suggestion containing the slightest element of promise. But critical analysis based on evidence of sufficient time has led most of them to the waste pile of failure. The x-ray, radium and surgery are practically the only ones left for discussion today. In cancer of the female breast, which is the exclusive subject of my discussion today, surgery remains practically the only method of general acceptance. As aids either in preliminary preparation or in post-operative treatment the x-ray and radium both find ardent support, as, also of possible benefit in cases which are already beyond surgical access when they reach the surgeon's hand. But as substitutes for surgery in any time of promise they are not counselled by even their most ardent advocates who possess any scientific knowledge or conscience.

These preliminary remarks sound discouraging. As a matter of fact we are not proud. Neither are we satisfied. We must still look forward for the solution we hope. And some day it will come. However there are some things we do know. And when this knowledge becomes more widely recognized we believe there is much of improvement which can be obtained even today.

The most important fact is, that every cancer is primarily a purely local disease. As a corollary, if every cancer could be recognized and removed at this period every cancer

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

could be cured. Cancer of the lip, being superficial, sensitive, and obvious, leads to practically immediate recognition of the beginnings of any lesion. At Johns Hopkins, Bloodgood observed that every lip cancer microscopically proven, removed within sixty days from onset by simple V-shaped excision remained permanently cured. It is obvious thus that if every lesion of the lip were removed quite simply on mere suspicion perhaps, the distressing experience of cancer of the lip would be removed. In cancer of deeper origin certainly such early discovery is out of the question. Even here, however, the statistics of Halstead should be burned indelibly into our recognition. In cases of cancer of the breast radically treated at an early period—in this instance so classified by the absence of microscopic involvement of the axillary glands—85 per cent under the three year test were cured. Contrast this with the general average of the same clinic in all cases accepted as operable at all, 42 per cent. Where 85 out of 100 women should have been saved only 42 were. Forty-three died from delay—perhaps neglect. Where is the responsibility?

This brings to the immediate front the question of early recognition, diagnosis and action. Unfortunately deep-seated cancer in its early stages is painless and without any symptoms whatsoever. History of cases shows that the first thing to attract the attention of the victim is a lump or tumor, accidentally discovered. Being void of annoyance she puts it out of her mind. We must educate the women to the serious significance of lumps in the breast. Or perhaps being wise and cautious she consults her family physician. At this stage there being present none of the diagnostic stigmata of cancer, he pooh-poohs worry and recommends watchful waiting. What a horrible responsibility!

The question of diagnosis becomes, therefore, one of paramount importance. As previously mentioned, in ninety-five per cent of cases the discovery of a lump or tumor is the first evidence. The examination, to confirm the presence of this lump must be careful. Picking up and pinching the breast with the fingers may produce very deceptive impressions. After all the breast is a lobular organ, and a differentiated lobe may thus be felt and interpreted as a tumor. Instead the breast should be palpated with the flat palmar

surfaces of the fingers compressing the breast smoothly against the underlying chest wall. A true tumor should then show up as though one compressed a small (or large) marble in a sac of sand. We thus prove the lump. Now what is it? In the early stages—that which we are seeking—there is no positively differential characteristic. In other words, no clinical diagnosis of the pathologic process is possible. Before any decision therefore it is worth while looking back upon the proven experience of past observations. Statistics covering thousands of breast tumors have been compiled by many different observers in even distant countries. In the other statistics from 80 per cent to 82 per cent of all tumors of the breast were found to be primarily malignant. More recent statistics have cut down this percentage, due undoubtedly to the results of education bringing women to an earlier examination before malignant degeneration has developed. Likewise, experience has proven that of tumors primarily benign left to time, one-half become ultimately malignant. Under the age of 30 malignancy is rare, in our experience less than 10 per cent. Past the age of 40, however, one may rather safely estimate that at least 90 per cent are probably malignant. With such percentage of probability facing us what should be our decision. To our mind there is but one answer. *Every tumor of the breast should be removed at the earliest possible moment after its discovery.* This does not mean necessarily any degree of radical operation. The tumor certainly cannot be eliminated any other way. A simple incision, extirpation of the growth. After removal immediate section of the tumor. We believe with Bloodgood that an experienced surgeon will be able in 90 per cent of cases to make a correct diagnosis from the naked eye appearance of the gross specimen. We do not trust to this alone, however. A competent pathologist must be at hand. In a few minutes with frozen section we may have a microscopic diagnosis. Of course frozen section diagnosis is not infallible. The malignant area may be missed in this quick examination. We feel assured, however, after considerable experience, that with the evidence first of the gross pathological appearances and then the frozen microscopic section, error will be practically negligible. Our rule is this. If the gross specimen appears malignant, regardless of the microscopic re-

port, we interpret as malignant. If the microscopic report is malignant, regardless of gross appearances we decide for malignancy. In other words we play the average whenever in doubt. Such a course enables us (1) to remove a simple tumor which could not otherwise be cured with a simple excision, without sacrifice of breast and no disfiguring scar; (2) thus to remove a precancerous lesion in which the liability is 50 per cent. In other words, to cure many cancers before they are cancers; (3) to recognize and prove cancer by positive methods before clinical diagnosis would even be possible. And with a diagnosis of malignancy thus made, immediate radical operation should have been prepared for and executed without delay for secondary procedure.

We believe that such a course universally adopted would save the lives of many women, without damage to any.

The second fact of importance in surgery of the breast is, that cancer spreads through the lymphatics. How long a cancer remains a local process is quite variable. In some instances it is apparent that the investing tissues put up quite an effort at local defense. About the cancer focus may be organized a connective tissue barrier effective in certain cases for a long time. We have occasionally seen a cancer of years duration shown at operation to be yet entirely localized.

Also it is probable that the individual lymph structure richness or poorness may effect the rapidity of spread. Plump, lymphatic types of individuals usually show rather rapid dissemination—a few so rapid that when first examined are already hopeless from general metastasis. In others, poor in lymph vessels, the migration is slow.

Again the lymph glands are interposed as filters, and may effectively block the spread for considerable time. Generally speaking the evidence of glandular involvement means a greatly decreased possibility of permanent cure. If this glandular enlargement is confined to the primary glands (in the breast the axillary) it does not, however, preclude cure, for the entire metastasis may be confined here. It is only when we find evidences of more secondary invasion that we know positively our opportunity has passed. Such remote metastasis should be carefully sought for and when found operation absolutely denied.

These observations lead us to the discussion of two primary principles underlying correct technique in operations for cancer of the breast:

First: The primary object of any operation for cancer, it must be remembered, should be the permanent cure if possible of that cancer. The operation must, therefore, be sufficiently thorough to insure the complete removal of all probably infected tissues within the limits of reasonable surgical access.

Second: Dissemination of the infection during the operation must be guarded against; likewise contamination of the wound with liberated cancer cells which may be left to re-graft the disease.

In the evolution of a surgery which will fulfil these demands in cancer of the breast, the pioneer work of American surgeons, such as our fellows Professor Halstead and Willy Meyer, has largely blazed the way. Their work, based on accurate knowledge of the pathology of cancer and its routes of extension, supplemented by the later studies of the English surgeon, Handley, has pretty well standardized the extent of resection required.

EXTENT OF OPERATION. The standard excision of today, therefore, involves the following:

1. SKIN. A wide area of skin covering the breast. In this respect American surgeons are inclined to go rather farther than the English. Many insist on a complete removal of the entire skin over the mammary gland. The English surgeons, as a rule, demand less skin removal, but insist on an extensive deeper resection. At least a wide area surrounding the underlying focus of infection must be removed. With present methods, complete ablation can be followed with equally satisfactory subsequent management.

2. MAMMARY GLAND. The entire mammary gland must, of course, be removed. It is well to remember that there are often outlying lobes and these must not be overlooked.

3. PECTORAL MUSCLES. It has been pretty fully demonstrated that lymph vessels containing cancer cells may be found running through the pectoralis major muscle and between the two pectorals. These muscles should, therefore, be included in the ablation. The clavicle portion of the pectoralis major is probably free from suspicion, and, for good reason, is by many not sacrificed. Its reten-

tion particularly saves a very troublesome vacant space just below the clavicle, which is hard to obliterate, and causes tedious convalescence. Some divide the pectoralis minor for axillary dissection and then resuture. We are unable to note any disadvantage to the patient in its absence, and its removal makes clean axillary dissection much better.

4. AXILLARY GLANDS, FAT AND FASCIA. All lymph-bearing structures from the axillary fossa requires clean and complete dissection. After the pectoral muscles have been divided and retracted, an incision to the outer side and parallel to the axillary vessels and nerves divides the loose fascia down to the line of cleavage of these structures. Then dissection on this plane inward clears them completely of all fat, fascia and glands. This clearing is carried high up beneath the clavicle towards the subclavian vessels and supraclavicular space. Branches from the axillary vessels are clamped close to their origin and divided, thus enabling one to make a complete dissection. This tissue clearing is continued down the under side of the scapula until the subscapular muscle stands out clearly and below and posteriorly the latissimus dorsi. Likewise the thoracic wall is cleared of all those tissues, including the pectoral muscle above, leaving the ribs and intercostal muscles bare. This muscle and fascia clearing runs quite to the median line.

5. SUPRACLAVICULAR SPACE. Some surgeons, as routine, make a similar clearing of the subclavian triangle above the clavicle. We believe this adds little to safety, and perhaps much to embarrassment. We prefer the post-operative raying of these areas.

6. ABDOMINAL FASCIA. Handley claims that metastatic spread is largely along fascial planes, and that by this route the abdomen is reached. Hence he advises further the removal of the fascia of the rectus on the side involved, down to the umbilicus, and in part the corresponding fascia of the external oblique. We have done this in section cases, but do not believe the practice has become general with American surgeons as yet.

DISSEMINATION AND CONTAMINATION. In operating we must further remember that dissemination may take place during the operation through uncut lymphatics, or contamination of the wound may occur with cancer cells escaping from cut lymphatics.

Dissemination may occur by milking the lymphatics in the manipulation of the infected breast during operation. Manipulation or squeezing of the breast should, therefore, be carefully avoided. More important, however, in preventing this complication is the suggestion, original, we believe, with Willy Meyer, to begin work in the axilla, dividing the lymph vessels at their highest point before the breast is handled at all. Thus the routes of dissemination are cut off. We go further and completely circumscribe the breast in our primary dissection, early dividing as well the pectoralis major at its sternal attachment, so as to cut off the route of dissemination through the chest wall into the thorax. The breast itself is therefore not handled at all until its peripheral zone has been completely shut off from its lymphatic connections.

CONTAMINATION. We are also of the opinion that perhaps many of the cases of local recurrence are due to cancer cells escaping from the cut lymphatic vessels during the operation. These implanted in the wound after its closure serve as grafts, which in their home soil readily develop into new growths. While this idea is not demonstrable, it is at least thoroughly plausible. To prevent such contamination we are wont to utilize two resources. First: Incision at the outset is made complete as planned, and the flaps on all sides which remain are dissected up to the extent required. They are at once covered with hot gauze pads to protect their surface from contact of escaping cells. As the dissection proceeds, we extend the process of gauze protection, covering both the area of the wound to remain, and as well the cut surfaces of the ablated breast to prevent the escape into the wound of the cells from divided lymphatics. Second: Fearing that despite these precautions there may yet occur contamination, we thoroughly irrigate the wound before suturing, with a stream of water of some force, accompanied with light mopping with gauze. In our experience, local external recurrences are rare, and we feel that perhaps these precautions have aided in the results.

SECONDARY CONSIDERATION.

Admitting the fulfillment of the above essentials in the details of operative tech-

nie, looking to the primary object of the cure of cancer, an ideal surgical procedure yet involves other considerations. We know that of all factors of success an early operation is the best possible promise of a permanent cure. Surgery must, therefore, win women to the idea of an early operation. In considering this purpose we must recognize the psychological and utilitarian aspects of surgery. Surgery must be made as attractive as possible, or perhaps better expressed, less repulsive. We have seen many results in the past in which this aspect of the case was not impressive. An arm disabled, with contracting and binding scars (which rendered it almost useless); long and tedious wound healing, with prolonged hospital stay and mounting hospital expenses, sapping the oft-times limited financial resources; repulsive scars from excessive skin grafting, with ribs showing through and the heart beats almost visible; is it remarkable that with these pictures shown in their friends, women should shrink from surgery in their own needs? Our results in cancer are not brilliant at best, but they are the best that science offers up to date. As surgical results we can probably only improve them through universal resort to early operation. We must, therefore, bend our efforts to make the primary results of surgery at least as attractive as possible.

Of these utilitarian and psychological factors, that of first importance is the preservation of a good function of the arm.

PRESERVATION OF FUNCTION. Painless, free, unrestricted movements of the arm constitute good function. Excess of scar tissue or improper placement are the chief factors producing disability. To prevent these troubles, several points should be observed.

First: The line of scar should not run transversely from arm to chest. If it does, the inevitable contraction of scar tissue is inclined to draw the arm towards the chest and prevent full elevation, abduction, and external rotation. A line of suture running in the long axis of the arm up to the level of the shoulder-joint and then on to the chest, would appear ideal.

Second: The proper obliteration of the emptied axillary fossa presents a problem. Unless satisfactorily accomplished, the large cavity must be finally obliterated by organization of new tissues with scar formation, which further restricts mobility. What may

be even more troublesome to the patient is the compression by such scar tissue of the brachial plexus, with much ensuing pain, or the compression of axillary vessels with impairment of circulation. A paper by our lamented Murphy, presented before the Western Surgical Society in 1904, emphasized these particular points. As a corrective, he advised leaving a flap from the lower border and outer end of the pectoralis major muscle, which was carried closely around the axillary structures and sutured to protect these from scar contractures. To us it seemed that this expedient was subject to criticism in that it left the portion of this muscle likely to be infected. Endeavoring to meet the obvious demands in a better manner led to our original work on this subject, which evolved the technic which we presented to the Western Surgical Society in December, 1905, and published in the *Journal of the American Medical Association*, March 3, 1906.

The complete obliteration of the axilla fossa, by bringing the skin from the under side of the pectoralis major, or the floor of the axilla, up to a longitudinal incision in the line of the arm, covered these vessels snugly and we consider it the chief value of that technic. When this was done in this way, we found the skin covering the front of the pectoral fold lax, and rather accidentally we slid it over to cover the area of the breast excision, and thus the flap evolved. While the flap proved an aid in covering the area of denudation, and this contributed to the value of the operation, the chief virtue sought and developed was in placing the scar line properly and in readily obliterating the axillary fossa.

Third: In the rapid restoration of function we have found another expedient valuable. If the case is dressed after the operation with the arm down to the side, we find it hard to get a timid patient to raise, abduct or externally rotate the arm. They are thus very slow in being educated to get the arm upward or backward, and hence are unable to dress their hair or otherwise wait upon themselves. To remedy this we have from the outset kept the arm up at right angles to the trunk. They are put to bed with the arm in this position; then early passive motion is begun, while between times the arm is kept up. With our method there is no tension even with the arm in this extreme abduction, and rapid improvement in arm function is pronounced.

SHORT CONVALESCENCE. Methods which insure prompt wound healing, and correspondingly shorten convalescence, save time and hospital expense—both matters oftentimes of much concern. These indications are best met by methods which permit primary closure of the wound without undue tension and primary union. It is remarkable how much can be done to facilitate suture by proper undercutting in dissecting up the flaps in any operation. With a wide skin removal, however, in some cases this can not be accomplished except by some plastic method. To these plastic methods some have objected, saying; "When one seeks to close a wound at the end of his operation, he will probably not be radical enough in the operation." If this were true, there would be nothing to say. On the contrary, it is much more probable that a surgeon will do a radical operation always, if he is possessed of resources which still permit closure without tension and primary union in most cases.

In either plastic flaps or undermined flaps we will sometimes have inadequate terminal vessel supply for every inch of skin margin, and hence there may be some small area of consequent necrosis. These areas when present are small. In many instances they result from venous engagement with secondary capillary compression and obstructions. Multiple small stabs scattered over the flap will permit drainage of venous engagement and obviate these areas of gangrene quite decidedly. It is a small point, but worth noting.

COSMETICS. Finally, of the minor factors is that of cosmetics. Women are naturally quite sensitive of their person. A disfiguring scar produces repulsion and horror both in the individual as well as in other women who see it. A wound covered by skin graft is certainly not a thing of beauty at best, and may be a determining factor in keeping others from needed attention. We believe that in the present day, with methods available, skin grafting should almost never be necessary.

In conclusion permit us to epitomize. We believe our results in surgery of cancer of the breast may yet be much improved.

1. By earlier operative interference.

(a) Through educating women to the serious significance of lumps in the breast, so that they will consult a surgeon earlier.

(b) By greater realization on the part of the profession of the probabilities of cancer,

in the stage before clinical diagnosis is possible.

(c) By diagnostic excision of all tumors before other diagnosis is possible.

2. By more thorough technique. Nothing short of complete removal of all possibly infected tissues within reasonable surgical access should be tolerated. Likewise much care in technique is required to prevent either dissemination of the growth or contamination of the wound.

And finally, we should not rest content with mere pathological surgery, but should add to it those considerations of finish which preserve not only life but also function, form and even economic happiness, thus making surgery not a horror, but a humane art.

"RADIOTHERAPY IN THE TREATMENT OF BONE TUBERCULOSIS AND OTHER CONDITIONS."*

J. D. Southard, M. D., Fort Smith.

Previous to writing this paper I made a somewhat extensive review of the current literature upon the subject of radiotherapy, which I found quite voluminous. This review included papers and reports from the Mayo Clinic, the Rockefeller Institute for Medical Research, the London Radium Institute, and a number of the large hospitals, as well as those from physicians, surgeons and radiologists of opinion as to the value of the rays in quite a large number of disease conditions, all of which, together with my own experience, leads me to say if there is a remedy that will cure or arrest as large, if not a larger percentage of malignant conditions than will anything else; that will cure a very large percentage of all forms of tuberculosis, except the far advanced pulmonary type; which will reduce to something very near their normal sizes and to a healthy condition enlarged and infected tonsils; which will cure a larger percentage of the various skin lesions than anything else; which will painlessly and bloodlessly destroy the diseased tissues and cells in these and many other diseased conditions without injury to any healthy tissue, I believe we should all cultivate an acquaintance with in the interest of our patients. I believe we have such a remedy in x-rays and radium rays. Certain it is that

*Read before the Sebastian County Medical Society, October 10, 1922.

many among the leading medical men of the world are of this opinion today. Radiotherapy has been weighed in the balance and not found wanting. Having been used ex-

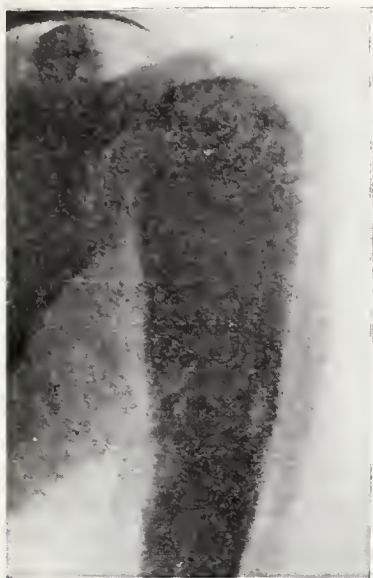


ILLUSTRATION NO. I.

Tuberculosis of the humerus before treatment. Showing enlargement and bone defects. The disease extends to and involves the head of the bone. Fracture in shoulder joint greatly impaired and painful.

tensively for some years by the leading physicians and surgeons of the world, it bears the stamp of their approval and commendation. It is the great friend of suffering humanity, the handmaiden of the physician and surgeon in the alleviation and cure of many diseased conditions. If not at present the greatest therapeutic agent in the world it is in my humble opinion destined in the near future to achieve that distinction. Some diseases formerly classed as incurable are vanishing, others are yielding more slowly but surely to the effects of these safe and painless rays.

There has never been any widespread opinion among radiotherapists and radiobiologists other than that the effects of the x-ray and the radium ray are practically the same upon all living tissues and cells. In their physics and source, however, they very fortunately differ in some important respects whereby they supplement each other very greatly in their present therapeutic uses. The x-rays, scarcely portable, are available in large volume for treating large areas or masses in quick time. Radium rays, easily

portable, are available in small volume for treating small areas or masses, requiring long exposures, and applicable for treatments in orifices, sinuses and for insertion into the diseased mass.

The dose of the x-ray is largely standardized, is quite accurately and easily measured and controlled, and is equally applicable to the treatment of large and small areas. The dose of radium rays is not so nearly standardized nor generally so well understood.

The dose of radium in this country is anything up to 2,000 milligram hours of filtered rays. In England it seems to be very much larger, as you will see presently when I quote from the annual report of the superintendent of the London Radium Institute for 1922. This is one of the few large institutions in the world devoted exclusively to radiotherapy. In this annual report the superintendent states that the institute has been in operation a little over ten years, during which period 7,750 patients have been dealt with and nearly 100,000 treatments administered. He says, with increasing experience it has been possible to augment the radium dosage greatly. In the early days of the institute a dose of 3,000 mg. hours was considered large; now it is common to give from 20,000 to 30,000 mg. hours, and if judiciously admin-



ILLUSTRATION NO. II.

Same case after treatment. Motion in shoulder joint normal. Bone almost normal in size, and apparently healthy.

istered conditions, x-rays are considered preferable to radium, as in generalized infection of the peritoneum, generalized psoriasis, the early stages of cancer, cystic disease of the

ovarics, eczema, etc. For these conditions an enormous amount of radium, mounted on numerous applicators, would be necessary to irradiate the whole area, while it can be easily done with a roentgen ray tube.

In all forms and stages of carcinoma radiotherapy is giving the knife the race of its life with the odds in favor of the rays, many inoperable cases being reported as apparently cured and in health several years after treatment, and any incurable cases are nearly all of them relieved of pain, discharge, hemorrhage and other disagreeable conditions.

I now come to the consideration of some of my own work. I began the use of the rays twenty years ago with a static x-ray machine and gas tube and have followed it through its advances, failures and successes to the present time. Most of my work has been done during the last few years. During the three year period ending October 1, I have treated with x-ray or radium, or both, 374 cases, to whom I have administered more than 8,000 treatments, including pulmonary tuberculosis, tuberculosis of the bones, lymphatic glands, joints, testicle, kidney, peritoneum and skin, goitre, tonsils and adenoids, the various skin diseases, rodent ulcer, nevi, chronic appendicitis and others.

Elsewhere I have already discussed the x-ray treatment of pulmonary tuberculosis and of tonsils and adenoids. I have had some interesting experience in the treatment of cancer with x-rays and radium, and some most excellent results, but cannot discuss it at this time without too greatly extending the limit of this paper.

In doing this work I believe I have made two discoveries which may prove to be of considerable value. There can be no doubt as to the value of one of them at least, if a sufficiently large additional experience shall duplicate and verify my results, and I very confidently believe it will do so in both instances. I refer to the x-ray treatment of acne vulgaris and bone tuberculosis. So far as I know no one else has treated either with the x-rays. Many patients have been subjected to amputation for tuberculosis of the bones of the leg. Hundreds of thousands have been crippled for life from tuberculosis of the bones of the spine, besides countless other disfiguring conditions resulting from bone tuberculosis. Furthermore when the bone is the primary seat of infection, in many cases,

perhaps in a majority of them, the disease sooner or later develops in the lungs.

Among the cases treated during the three-year period were twelve of acne vulgaris, and during the first two years of that period were 13 cases of bone tuberculosis, only those treated a year or more ago being included in order to give time for estimating results with respect to permanency. In one of these there was some doubt as to the diagnosis which I will later explain. Five of these cases involved the bones of the spine and one each of the femur, femur and hip joint, foot and ankle, hand, or ilium, humerus, knee and sternum. Two stopped before the treatment was completed. These were one of the spinal cases and the knee case, leaving eleven in which the treatment was completed. With the exception of the humerus case, completed eight months ago, treatment was completed in all from one year to two and a half years ago. These are not selected cases, but were treated consecutively as they came to me. Nine competent surgeons had operated on six of these cases eleven times, resulting in eleven failures as shown by the fact that in each case when they came to me months after operation the disease was still active as shown by discharging sinuses and by radiographs. One had been operated on three times, four twice and one once. Under x-ray treatment alone I saw each of these eleven cases heal and get well within a comparatively short time. I have seen or received reports quite recently from all of them to the effect that they are well and have had no trouble whatever since the treatment. In three of these cases, those of the foot, ilium and humerus, as shown by radiographs, there had resulted considerable bone destruction causing large defects in the bones, all of which were completely repaired and the defects filled up by bone regeneration during treatment.

The sternum case showed lung involvement and a three-plus Wassermann. She was given salvarsan and other anti-syphilitic treatment while being rayed for tuberculosis of the bone and lungs. Here was a case of double infection given a double treatment and apparently cured. I believe tuberculosis predominated as the etiological factor in the bone lesion in this case. In none of the other cases was there any suspicion or history of syphilis and I have never doubted the correctness of my diagnosis in any of them. As bone repair progressed

the discharge gradually ceased and the sinuses finally closed, when this repair was completed, and they have remained closed. In the ilium case the x-ray showed an opening entirely through the bone, nearly the size of a half dollar. Five of these patients were presented and seen by some of you at the meeting of the clinical staff of Spark's Hospital, Fort Smith, last December.

I don't know what your success has been in the treatment and cure of acne vulgaris or "bumps," such as is usually seen on the faces of boys and girls of about high school age; but up to three years ago mine was about 100 per cent failures. Since then it has been exactly the opposite. I have treated twelve cases with the rays and cured twelve. The first case that I ever cured, so far as I know, was on the face of my own daughter. She had a slight case, the eruption being on both cheeks. Having successfully treated various other skin conditions, with the x-ray, I suggested to her that we try it on her "bumps." Selecting the worst side to treat and leaving the other as control, after a few treatments the eruption began to disappear simultaneously from both sides, the rays having cured the opposite side as they emerged after passing through the face, thus destroying my control. Usually I treat all erupted surfaces about alike and generally after four or five treatments, totaling approximately one skin unit, the result ceases to be doubtful and soon the bumps are gone, leaving the face smooth and healthy. Another case was that of a young lady of about 25 years of age, who developed the trouble when she was a school girl. It was a very aggravated case, on both sides of her face. She told me she had done everything she could, and that different doctors here had treated her without any improvement, and that when visiting in New York she had gone to a skin specialist for treatment, but with no better result. It has now been two years since I treated her, using the x-ray alone, during which time she has been entirely free from the trouble. The other ten cases were similar, some mild, others very severe. All of them were cured.

In closing I trust you will pardon me for a few friendly suggestions. Don't amputate legs or arms or operate on them for any tuberculosis condition of the bones, no matter how extensive the disease process is, how long it has existed, or where it is located. Don't re-

move their tuberculous kidneys, testicles, lymphatic glands, operate on them for tuberculosis of the intestines or for exophthalmic goiter, enlarged tonsils or cancer until after you have tried the rays; because, if you do, you may make a mistake, and if you don't you will not have to operate at all on a very large majority of them, and in the few who must come to operation you will find conditions generally much more favorable for operation than before radiation. Finally, after you have used all your favorite ointments, salves, lotions, etc., on the faces of the young people who come to you distressed about the acne on their faces, if you have failed to benefit them, don't despair and leave these boys and girls to battle their way through high school handicapped and humiliated by these unsightly bumps, until you have given the rays a trial, for it will almost certainly cure and make them happy.

When all the testimony at hand is considered the conclusion is inescapable that irradiation with x-rays or radium, or both, will cure a large number of non-malignant diseases; that it will arrest or cure a considerable percentage of malignant conditions and should be used in practically all malignancies both operable and inoperable. In operable cases both pre and post operatively to prevent metastasis if it has not already occurred and to destroy it if it has previously developed; in inoperable cases because it will arrest a not inconsiderable percentage of them and by stopping hemorrhage, lessening the discharge, abating the odor, relieving pain, and slowing the progress of the disease, the patient's life is prolonged and made much less distressing, often even comfortable or enjoyable.

JUNE.

*Now cometh June and grass is green,
The golfers on the links are seen,
Hay fever passes but still the summer cold,
Will threaten all who with the air are bold,
The sun's heat still is quite a solemn joke,
And one may venture forth without a stroke;
Tennis delights, and baseball gives a thrill,
But swimmers suffer with the water's chill;
The motorist discards his winter's load,
And points his ear out on the open road.
June's here at last and everything is ripe,
The call of Nature for the outdoor life.*

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

OUR NEW PRESIDENT.

Dr. W. T. Wootton of Hot Springs, elected president of the Arkansas Medical Society at the May meeting, may be said to be a medical man by both heredity and training, as he comes from a long line of physicians stretching away back to colonial times. He is a direct descendant of Dr. William T. Wootton, founder of Jamestown, Va., and said to have been the first physician after the British colonized that section. Every generation in the family since that period has had at least one physician, many of whom have become distinguished in the profession.

Dr. Wootton's father was a physician, Dr. Edward Wootton of Poolesville, Md., where the subject of this sketch was born on April 12, 1878. He served as regimental surgeon in Col. E. V. White's regiment in the war between the States. After the war he settled in Poolesville, where he built up a large practice and continued in harness for half a century or more. He was active in public affairs, served his district in the Maryland legislature and was affiliated with the Masonic fraternity.

Note how the son followed in the footsteps of his distinguished and patriotic father. He too, answered the call of his country a generation after the Civil War, by volunteering for service during the war with Spain. Having already had experience in hospital work he was sent to the Philippines, serving for two and a half years as assistant surgeon with the rank of captain. He, too, in his adopted home, Hot Springs, took an active part in civic affairs on Red Cross Committee work, boys' welfare work, as member of the board of health, as member of the Federal Registration Board, and as chairman of the Anti-Drumming Committee which cleaned up Hot Springs by abating that pest of travelers and visitors, who could not enter Hot Springs without being solicited by runners for fakers and unprofessional professionals—if such an expression may be allowed.

During the late war, Dr. Wootton was placed on the reserve list with the rank of major to command the Army and Navy Hospital at Hot Springs, but was not called upon to serve. To complete the parallel with his father's career, he, too, is prominent in Masonic circles.

After completing his education in the Maryland public school and the State College, Dr. Wootton entered the University of Maryland, graduating with honors in 1899 with his M. D. degree. Before entering the army he spent a year as house physician in the Maryland State Hospital. After returning from the Philippines he located in Hot Springs and began practice there in 1903.

He is thoroughly alive to the value of medical societies. He is an ex-president of the Garland-Hot Springs County Medical Society and of the Southwestern Medical Society; ex-vice president of the Southern Medical Society; a member of the Mississippi Valley Medical Society, the Tri-State Medical Association, the American Medical Association, the Executive Committee of the U. S. Public Health Service Free Clinic and Chief of Staff of St. Joseph's Hospital. With all these activities he finds time to do excellent work for the Presbyterian Church of which he is a deacon. He is also a member of the Elks. In politics Dr. Wootton is a staunch Democrat.

Dr. Wootton is married and the father of two daughters, Martha W., and Margaret E. His wife was Miss Emma Whittington, a daughter of the late Col. Alfred Whittington, one of the pioneer settlers of Arkansas, and in whose honor Whittington avenue was named.

That the Arkansas Medical Society has a real worker in its new president is amply demonstrated by this brief sketch of his career. He is the sort of man deserving of honors and the society may feel itself honored that a man of so many and such varied activities consents to take on the additional burden of serving as its chief executive.

DANCE MARATHONS.

The "dance marathon" disease has been epidemic lately. The symptoms of the disease are a sudden loss of mentality with resulting loss of the power to control the feet which thereupon begin to move up and down, back and forth, until exhaustion ensues. The disease affects pairs, male and female. It is caused apparently by the sound of clinking shakels, associated with the strains of an orchestral din. The results are chiefly a loss of leather from the patients' shoes; the mental results are nil, for where nothing has existed, no change can occur.—*Hygeia*.

Editorial Clippings.

WHAT MILWAUKEE—AND SOME OTHER PLACES—THINK OF ABRAMSISM.

At a largely attended regular meeting of the Medical Society of Milwaukee County, held May 10, Dr. G. E. Seaman offered the following motion:

"That the entire Abrams method is such a palpable fraud that this society considers it beneath its dignity to appoint a committee to investigate it, and that the pursuit of the Abrams method on the part of any member of this society shall be considered inconsistent with membership in this society."

The motion was carried without a dissenting vote. Two or three weeks ago, *THE JOURNAL* published a resolution printed in the *Bulletin* of the Los Angeles County Medical Association, in which that society went on record as declaring that the "Abrams method of diagnosis is a fraud" and that any physician who practiced the method was ineligible to membership in the association, and that any member of the association who practiced the method would have charges of unethical conduct preferred against him. As a result of this editorial note we have received a brief letter from Dr. W. B. Moore, the secretary of the Harrison County (Ky.) Medical Society, reading in part:

"I wish to state that the Harrison County Medical Society expelled two of its members March 5 for practicing this fraud. This is the first instance I have noticed of a doctor being expelled from his society for such unethical conduct."

In this connection, it may be of interest to recall the fact that last January the Tulsa County (Okla.) Medical Society expelled two of its members who were local exponents of the Abrams method. More than a year and a half ago the Massachusetts Medical Society called for the resignation of one of its members who was an Abramsite, and about a year ago the same individual had his license to practice medicine revoked by the Massachusetts Board of Registration in Medicine on the charge that he was guilty of deceit, malpractice and gross misconduct in the practice of his profession in that he had treated a young man by the so-called Abrams* method. *Jour. A. M. A.*, May 19, 1923.

*A reprint of the matter that has appeared in *The Journal* on the Abrams vagaries will be sent on receipt of four cents in stamps.

Abstracts.

MEDICAL EDUCATION, PAST AND PRESENT.

Today, J. A. WITHERSPOON, Nashville, Tenn. (*Journal A. M. A.*, April 28, 1923), says two glaring crises confront the medical profession. One is that medical schools are not furnishing physicians who are willing to practice in the places where they are most needed; the other is that the system of education is training men in such a way that they could not practice efficiently in these places if they desired to do so. This is not only a menace to the people; it also threatens the system on which the blame falls. The changes made in medical schools and teaching methods were brought about with splendid purposes in mind; but, in some way, the education of today seems to unfit men for the real practice of medicine at the bedside. That this revised, improved method of teaching medicine is not devoid of defects is apparent to all who have devoted much time to study of the problems involved. One objection is that it overworks the student and gives him an enormous amount of instruction which he cannot learn to use to advantage in so short a time—this in spite of, possibly because of, greater clinical facilities. Another defect is that each teacher has felt and has tried to impress on his pupils the great importance of his own particular subject. Specialties, therefore, have been emphasized out of all proportion to their merit, and the student has been robbed of time and mental effort that could have been employed more profitably. The only excuse for the existence of medical schools, hospitals or physicians is that there are the sick who wish to become well and the well who wish protection against disease. The physician is the man who is employed and paid to accomplish the cure. The hospital offers him opportunity to perform his work skilfully and promptly. The function of the medical school is to prepare physicians to cure the sick. Men go to medical schools to study, to learn lessons, clinical and didactic, to acquaint themselves as far as possible with the present state of advancement in medical knowledge, and with the methods of applying this knowledge in the practice of the healing art among the people. And the people are crying, whole communities, whole counties, for men to come to them with this skill. It is the purpose—or

should be—of the medical school to train general practitioners and to reduce the time devoted to special studies to a minimum so that the student may devote a maximum of time to the subjects embraced by the term “general practice.” If any man would specialize, he should be required to spend sufficient time after graduation in acquiring proficiency in the chosen line of work. This cannot be done during his undergraduate years without neglect of the broad foundation in general medicine, without which no man can hope to become a truly great specialist. The objections to the employment of full-time men in medical schools to teach the practical branches are set forth at length by Witherspoon. He closes with these words:

This new idea of full-time teachers in the practical departments of medical schools did not originate in the profession. It is the child of the brain of a man who never studied medicine, never practiced medicine and who doubtless has no inclination to do so; the child of one who, therefore, cannot realize fully what it means to be a physician; what the difference between a physician and a banker or a teacher is; who does not know the feeling of responsibility that every good physician knows. Now, this fond father brings this strange child and leaves it on the doorstep of the profession with the assurance that it is a fine child, and with the insistence that the profession adopt the child and make it sole heir to the throne of the empire which their fathers and they themselves have builded.

Personal and News Items.

On May 31, the Little Rock College conferred upon Dr. Paul Leo Mahoney of Little Rock, the degree of Master of Arts.

Dr. and Mrs. Charles Travis Drennen celebrated their twenty-fifth wedding anniversary, Friday, the first of June, at Morningside, Hot Springs National Park.

Dr. Walter M. Matthews, of the Veterans' Bureau, Little Rock, recently returned from attending a post-graduate course in the treatment of tuberculosis, given by the Veterans' Bureau at Dallas, Texas.

Dr. S. F. Hoge, Little Rock, has been notified that the result of his recent U. S. Civil Service Examination on Pathology and Bac-

teriology gave him a high percentage, and his name is now number one on the register. This service is applicable to U. S. Veterans' Bureau and other branches of the department.

Proposed changes in our Constitution and By-Laws.

Article V., Page 3.

Amend Art. V., page 3, of the printed Constitution of 1921 by striking out the word following "ex-officio," and substituting therefor the words "president, the secretary and the ex-presidents of this society, provided, however that the ex-presidents shall not have the power of voting."

Chapter 1.—Membership.

Section 1.—Honorary Members. — Additional paragraph to read:

Honorary membership of this society may be conferred upon any member by a two-thirds vote of the House of Delegates in regular session, upon the recommendation of the county society of which he is a member, and the approval of the Board of Councilors. Such membership will be granted a physician who has been a continuous member for a term of fifteen years, who is not less than sixty-five years of age. Such membership shall be for life unless revoked by the society of the county in which he resides.

Chapter XI. Amendments.

The word Constitution on the second line to read By-Laws.

County Societies.

GRANT COUNTY.

(Reported by C. B. Capel, Sec.)

The Grant County Medical Society met in regular session Monday, June 4th, at the Sheridan Hospital. President Sheppard, presiding.

Present: Blakely, Butler, Cole, Sheppard, Jones, Capel.

Dr. J. O. Gurney from Jefferson County, was a guest.

The essayist not being prepared, the time was taken up in reporting some interesting cases.

JEFFERSON COUNTY.

(Reported by J. T. Palmer, Sec.)

The Jefferson County Medical Society had the best meeting of the year, Tuesday evening, June 5, 1923. The attendance was unusually

large. Dr. C. W. Dixon of Gould, was a guest.

The program which was well presented was as follows:

"Infant Nutrition and Feeding," by E. C. McMullen.

Several interesting cases reported by W. M. Breathwit, one of glioma of the eye, wherein the eye had to be removed.

"Extra Uterine Pregnancy," with report of two cases, by W. T. Lowe.

"Subinvolution," by J. T. Palmer.

The meeting was harmonious, and each member seemed to enjoy the occasion.

CHICOT COUNTY.

(Reported by J. S. Wilson, Sec.)

The Chicot County Medical Society met in Lake Village, May 17, 1923.

In June, 1922, we had a meeting in which the families of the doctors were present, and afterward served a fish dinner. This was so much a success that we decided to meet in this fish dinner meeting annually, with our wives.

At the meeting this year several out of the county doctors were with us; they included Dr. and Mrs. M. D. Ogden of Little Rock, Dr. and Mrs. A. E. Cone, Dr. and Mrs. H. E. Cockerham of Portland, Drs. DeClark and Smith of McGehee.

In the absence of the president, Dr. Douglas, Dr. B. C. Clark was called to preside. After the reading of the minutes of the previous meeting, we were delightfully and profitably entertained by a splendid address by Dr. Ogden on "Chronic Cervicitis." This was very freely discussed by all present. A paper was then read by the secretary, Dr. Wilson, on "Diagnosis, and Its Importance." This brought out some very lively discussion, which was the principal feature of the meeting.

At the conclusion of the scientific program we all repaired to the popular and beautiful Gaines pavilion, overlooking Lake Chicot, the beauty spot of Arkansas. Here the important part of this program was rendered in the form of a delicious fish dinner, served as only Mrs. Gaines can. Everybody voted this the best feature of the meeting, and all are agreed to make the annual fish dinner meeting a permanent feature of the Chicot Medical Society.

We meet every month, on the second Thursday, at 2:00 p. m. All doctors who may be visiting our wonderful resort are cordially invited to meet with us if they happen to be in our community at this time.

WHITE COUNTY.

(Reported by Sam J. Albright, Sec.)

White County Medical Society met at Judsonia, Thursday, June 7th, at 8:00 p. m. Present: Hassell, Jelks, Jones, Little, Purnell, D. W. Sloan, J. R. Sloan, Henderson and Albright. New member, W. H. L. Woodyard of Judsonia. Visitors, N. E. Fraser of Conway, W. H. Fraser, W. R. Felts and L. M. Warden.

Dr. N. E. Fraser presented a paper on "Tumors of Optic Nerve," with report of case. Other cases reported were: "Abscess of Lung with Complications," by Dr. D. W. Sloan; "Empyema of the Chest," by Dr. Woodyard; "Case of Pneumonia," by Dr. Henderson. Discussion was general and much interest was manifested.

Dr. L. M. Warden requested the secretary to write Sebastian County for a transfer of membership.

Before the meeting opened the society was entertained with supper by the doctors of Judsonia.

BOONE COUNTY.

(Reported by D. L. Owens, Pres.)

The Boone County Medical Association met in Harrison, June 5th. Present: Gladden, Watkins, McCurry, Poyner, F. B. Kirby, L. Kirby, Wallace, Blackwood, Crebs, J. H. Fowler, T. P. Fowler, Baines, Sims, Jackson and Owens.

Visitors: E. G. Findley of Leslie and G. W. Floyd of Western Grove.

Dr. J. H. Fowler read a paper on an aggravated case of "Puerperal Eclampsia."

Dr. F. B. Kirby presented as a clinic a young lady aged 17 with acromegaly and general infection with general glandular involvement.

Drs. Gladden and Floyd presented a man 63 years of age with probable cancer of liver.

Dr. Watkins reported a case of fracture.

All the cases were discussed and treatment suggested.

Next meeting is to be held in Harrison, September 4th.

Obituary.

DR. G. W. HART.—Dr. Geo. W. Hart, Hindsville, died April 13, 1923.

DR. JOHN MCGINTY.—Dr. John McGinty of Fort Smith, died May 27, 1923. Age 62. He had been a resident of Sebastian County for about twenty-five years, and was one of the best known physicians of this section of the State.

He is survived by his wife and three sons.

Dr. A. U. WILLIAMS.—Dr. Arthur U. Williams of Hot Springs National Park, died May 21, 1923. Age 68.

Dr. Williams has been a member of the Arkansas Medical Society for many years and always took an active part in its proceedings. He was found dead in his office late in the afternoon. He had apparently sat down in his large office chair for a rest, his feet were on the table, and his body swung back low in the chair.

He is survived by a wife, a son and daughter.

Book Reviews.

Physical Exercises for Invalids and Convalescents.—By Edward H. Ochsner, B. S., M. D., F. A. C. S., Chicago. Second Edition. Published by C. V. Mosby Company, St. Louis, Mo. Price 75 cents.

This little book describes clearly forty exercises which can be executed conveniently and without any apparatus in the patient's home. Not only is it for patients, but also recommended for persons engaged in sedentary occupations.

The Successful Physician.—By Verlin C. Thomas, M. D. Visiting Physician to Franklin Hospital, San Francisco, Octavo of 303 pages. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth \$4.00.

A book, such as this is like a guide book. It points out the way and shows the straightest and best paved road to the goal. As the author says "he cannot make the blunderer efficient; and cannot make the misfit fit." But careful reading of the book will help to avoid errors that others have made.

The book has been conceived and it is dedicated to the doctor who wants to be a better citizen and a valuable member of his community.

Bronchoscopy and Esophagoscopy.—By Chevalier Jackson, M. D., Professor of Laryngology, Jefferson Medical College, Professor of Bronchoscopy and Esophagoscopy, Graduate School of Medicine, University of Pennsylvania. Octavo of 346 pages, with 114 illustrations and 4 color

plates. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth \$5.50 net.

This book is made up of thirty-nine short chapters, based on an abstract of the author's larger work, "Personal Endoscopy and Laryngeal Surgery."

The book closes with a bibliography showing a list of publications of the author which may be useful for reference.



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THE JOURNAL

OF THE Arkansas Medical Society

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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No. 2

Original Articles.

ANNUAL ADDRESS.

Robert Caldwell, M. D., F. A. C. S., Little Rock, President Arkansas Medical Society, 1922-1923.

One has only to review the accomplishments of the last twenty-five years to understand why some of our learned men are speaking of this as the scientific age. It is not the purpose of this address to deal with any phase of the history of medicine, only as this history may be directly associated with the problems of today.

It is true that the average longevity of man has been increased several years within the last fifty. This, as you all know, is not because people are living longer than they used to, but due to the fact that we are saving the children and the young people. One has only to reason a little farther to know that this has been accomplished mainly through preventive medicine and efficiency in board of health work.

During this time there has been quite a change in one of our greatest American institutions, the family doctor. His was an influence for good, scientifically, morally and socially, that I doubt if our modern department store method of practice is supplanting.

Far be it from me to criticise specialism; but in our ultra-scientific way, we are neglecting something that the old family physician held very dear. That personal touch and individuality of the patient. We should stop, look and listen and wonder why short cuts to the practice of medicine are so popular with our patients. Why can a "Coue" create more sensation than a Lorenz? There was a time when the faith in the family doctor was so great that his presence alone tided the patient over many crises, and we, born of sur-

gery, and specific medicine, should think twice before criticising bread pills or sweetened water, if such be preferred to auto suggestion, in carrying out his schedule of procedure.

Today we are prone to cure by surgery or specific medication, and failing in these, and desiring to be absolutely frank to our patient, we oftentimes neglect the thousand other things that can be said or done for the complaining.

Dr. Irving S. Cutter of Omaha, at the Annual Congress for Medical Education, at Chicago, March 5, 6 and 7, said: "It is easier to remember than it is to think, and to think to a logical conclusion is the most difficult of all. Owing to the over-reliance on laboratory diagnostic methods there is often slighted the bed-side examination made with the full confidence of the patient and with his entire co-operation. Too frequently an appalling number of x-ray pictures are taken, and laboratory findings checked, and the patient is told there is nothing wrong with him, and to go home and get well. But the fact remains, that the patient is sick. He needs help and because of the failure of the physician he drifts into the welcoming arms of the theatrical healer. That functional disease is a distinct entity, cannot be gainsaid. Evaluate pure science fairly, evaluate research sanely and emphasize the skillful management of the sick individual. A study of the methods of the old doctor, and the application of many of them would mean greater success."

How many of us have seen cases where the blood examination was negative to malaria, yet quinine cured the chills? How many have also seen cases where the blood gave a negative Wassermann, yet clinical experience demanded we use anti-luetic treatment and end results left no doubt in our minds that we were treating syphilis.

Our laboratory findings are of paramount importance and could they be depended upon alone, much of the uncertainty in the practice of medicine would be eliminated; but I would ask that you put not too much faith in any one diagnostic sign, but acquaint yourselves in a way of that wonderful store of knowledge of the old time family physician, who depended on his five senses, to diagnose his case and then used the laboratory as an adjunct.

I was treating a very prominent attorney not long ago, and he made a very severe criticism on the practice of medicine of today, and said the same held true of law. Namely, that we do not take our work seriously enough. We fail to always do our best. I believe that the old family doctor took his profession more seriously and came nearer giving the best that was within him under all conditions. The first thought of this address then, is to do homage to the family doctor. May there be more of them and may they become better until under their guiding care, some of the cults at least will be useless.

Speaking of cults, if I read history aright, we have had them with us since earliest time, and will probably have them ever with us. To try to legislate them out is practically useless. To limit their field and control their activities would be much better. If there is any good in their endeavors, to retain that for ourselves would be more in the line of reason.

What is chiropractic but massages; yet what medical school has associated with it a man capable and willing to teach when massage is indicated, let alone demonstrating it on the living subject. Were we of the medical profession, to diagnose all cases amenable to relief by massage, and see to it that said cases took treatment of a competent masseur, there would be little demand for chiropractic.

Drugless therapy has added thousands to its ranks within the last twenty years. I wonder, if, since we have hitched our wagon to the stars of specificity, and surgery, we have neglected so the personal equation of the patient, that the patient had to go elsewhere for its suggestion. We pooh-pooh the idea of the pan of water under the bed, driving out night sweats. We laugh at the acorn carried in the pocket as a prophylactic against rheumatism. Yet we are so sincere in our faith in modern medicine that we cannot make use of the

susceptibility of the patient to suggestion so we may use it for his good.

There is inborn within the most of us, a feeling that there is a sublime being that shapes our destinies, and that sublime being is the mighty healer of us all. Whether drugless therapy is founded upon this belief or the belief that we can control body ailments by our own faith in our own will-power, makes little difference when it comes to the direct application of the remedy. The first necessitates a faith in the Supreme Being, the second a faith in one's self. We should be able to diagnose cases so in need and be big enough to have tact enough to see that such patients get indicated treatment instead of wandering away from the art of healing to be coddled by some cult. In other words, we should know the principles that underlie the success of drugless healers and be able to make use of such good points as are in such system or to refer such cases to someone that can.

There was a time when we thought the homeopath and the eclectic, and later the osteopath would be transitory. Little good it did us. Today we are admitting and rightly so the first two into our societies, and from the homeopaths particularly we have learned much in regard to drug doses. We co-operate with them because they have elevated their standards and we are medical men as they.

The osteopathic schools are adding to their curriculum and if they keep progressing will soon be on an educational basis fit to be recognized. For the chiropractors, I have no alibi; but it seems to do no good to fight them, as the moment we start to fight any incompetent cult, we are met with the cry of "persecution" or "medical trust." A peculiar thing to me is, why is the public so willing and ready to condemn, criticise or even prosecute what it thinks incompetent medical men and is so lenient with men with absolutely no medical ability. I particularly appeal to you to help educate the public as to the field of the cult and particularly educate yourself as to the efficiency of any treatment, the cult gives.

I would like to make an appeal in this address to the members of this society to take more direct interest in original investigations in medicine. Accurate and complete case records will contribute much to professional

and business efficiency and oftentimes furnish valuable information which would not otherwise be obtained. Standardization of our hospitals has proven that; but it is not necessary for a doctor to be connected with a large clinic to do original work. Some of the greatest thinkers have developed in the smaller cities. Then, again, if you have something good do not let it die with you; but give it to your brother practitioners. Publish it in a medical journal. Good scientific programs are hard to get and new ideas and new thoughts are always welcome. In your regular line of duty to develop a hobby in some particular line of diagnosis, therapy or surgery would in a few years make your influence felt within a radius far beyond your expectations did you put sufficient energy and time in the work. Remember Roosevelt's saying: "Genius is hard work." Ours is an untiring work if we are to keep the medical profession of Arkansas on a par with medicine in our sister States.

I wish to say a few words in regard to medical education.

The exalted position which the profession enjoys today is due to the advanced standards of medical education. Operative medicine can rise no higher than the force which created it. Therefore, the medical school, the fountain head of all medical energy, must engage and hold our ardent and undivided support. All efforts of political, social, economical or educational improvements invariably encounter organized opposition and resistance, and the movement to standardized medical education is no exception to this statement.

It must be confessed with shame that the most formidable early opposition came from the profession. But we are pleased to say that less than in a decade and a half, the whole structure of medical education has undergone a transformation and attained an altitude of excellence unparalleled in any other of the sciences.

Medical departments of State Universities and endowed institutions with their two years pre-medical course have taken the place of the low grade medical school. The subject-matter, division and rendition of the medical curriculum is no longer a subject of dispute. The hospital, as necessary a teaching agency, in the clinical years, as the laboratory in the pre-clinical period, is being rapidly standardized to conform to the other

activities of medical education and with such a history of achievements it would seem that no one would be so bold as to question the wisdom of unqualifiedly accepting these standards.

But danger often lurks in victory, as the vicissitudes of war have often demonstrated. To hold fast to that which has been dearly bought often requires a degree of skill and courage superior to that by which it was obtained. To maintain the present high standards of medical education, and licensure, will be no easy task, but public sentiment is strongly reversional. If there is to be permanency to what has been accomplished, there can be no disagreement in essentials or principles. There must be unity of purpose and action.

With few exceptions, every State university maintains a department of medicine at which accredited courses in the medical sciences are given. The States have at last recognized their duty in this respect and have accepted the principles that medical education is a part of the general educational system.

That State is strabismic which provides for instruction in the arts and makes no provision for medical education. The fundamentally important science which trains for the prevention and cure of disease ought to be first in the hearts of the people. I come now to that part of this address which concerns our medical school.

Our medical college was acquired by the State in 1911, at which time it pledged its faith, honor and credit to maintain said school in accordance with educational standards of the association of American Medical Colleges. This means that it must be maintained as a Grade A. school, with entrance requirements of two years college work, standard laboratories and equipments, hospital beds, discrepancy and full time teachers. The Grade A. was acquired in 1919; but, due to the fact that we did not have sufficient hospital beds, instruction was discontinued in the junior and senior years. Instruction was resumed in the junior year in 1922, and will be taken up in the senior year, 1923.

Among the things that have kept us back are the appropriations which have been insufficient. There has been a lack of co-operation from the medical profession particularly noticeable at the last meeting of the State

legislature. This fact which gave osteopaths, chiropractors and "quacks" great gratification. The legislature which makes the appropriations has been influenced by the enemies of higher medical education. If the medical school is properly supported by the profession, there will be built up in the minds of the public a demand for higher grade doctors only. The State should and ought to supply the needs of doctors for the State. The scarcity of doctors should not be solved by lowering the standards of the school. Dr. N. P. Colwell of Chicago, reports there will be 3,000 graduates this year (from all medical schools) four thousand or more in 1924, and five thousand in 1925, the largest number since 1906, proving that after the effect of the war period is over that we shall be graduating as many doctors as formerly and that the scarcity of doctors is not due to the high grade schools.

During the last legislature there was a concerted effort to license men to practice medicine who had never graduated from a medical college and had practically no medical training. Their argument was, that in some of the sparsely settled counties of the State there were great areas where the doctor was not accessible. One legislator made the remark that his county with a population of 12,000 scattered through the hills and valleys with poor roads, was dependent on six doctors, three of whom are too old to make night calls. He said: "We want anything which knows a little more than we do. I am opposed to tearing down the standards of the medical profession; but what are we to do when they give us no help. Medical students from a good medical school will not consent to go back to our rural conditions, consequently our boys are feeding the cities, and the rural population will suffer for want of medical attention." We may say that good roads will finally solve this condition; but this is doubtful. There are two things that the State could do to solve this condition:

First: The State can subsidize doctors to go into these thinly settled localities, a plan I think not feasible; and another, the next legislature could appropriate a scholarship fund of say \$10,000.00 to the medical school for the biennium and the same amount from the 1927 legislature. The faculty of the medical school would be authorized to apportion this fund to as many students as it would

support. These students to be drawn from the mountainous countries after a thorough investigation of their physical, moral and mental fitness. Every student who is allowed this scholarship, to be required to sign an agreement that he will go into the practice of medicine say for four years, in a community which is suffering from lack of medical service, said community, to be chosen with the approval of the faculty. Of course, details of this would have to be worked out; but this scholarship should be apportioned to the student so as to be sufficient to pay all legitimate expenses in the four year course. And the student would have to agree and guarantee that he would accept such location. I believe that poor people in the rural districts should not have thrown upon them a class of inferior doctors and the State owes them good medical attention.

Today many of our students are in medical colleges in Memphis, St. Louis, New Orleans and other outside colleges. It would be best for the future of our State did we educate them here. The greatest argument against sending our students out of the State is that frequently the best men are not returned to us. If a man shows exceptional ability or skill in a particular line, he not infrequently becomes an under-study, or assistant to one of his teachers and prefers to associate himself with such and never return to his home State to practice, thereby depriving our State of the services of these doctors destined to be leaders in our profession.

If the medical college is not what it should be, we of the State Society should get behind it and make it what it should be, as it is a part of our educational system.

At the last meeting of the State legislature, the State Board of Health got about all the financial aid that they could expect under present conditions and in fact as large an appropriation as can be used from a central office and unless the counties take more interest and acquaint themselves of their own needs and the good to be accomplished by a health board, we will remain in *statu quo* and it is up to the doctors of the said counties to take the lead in this work through their societies. What is your local county society doing to help stop the spread of the dreaded venereal diseases? What is it doing to see that pure food, pure milk, healthful and wholesome water are in evidence?

Are you reporting all reportable diseases and exerting your best efforts to prevent them? Are you reporting promptly all births and deaths with a painstaking study as to the cause of said death so the report will be self-explanatory?

Dr. Welch, State health officer of Alabama, realizing that due to the fact that the treatment of venereal diseases was expensive, and the ordinary person of limited means would take treatment until evidenced symptoms were relieved and then defer treatment until symptoms appeared again, organized 17 county medical societies of his State, so that each society appoints one or more of its capable members to treat G. U. cases at \$2.00 per treatment, even giving a neo salvarsan for \$2.00 where these cases are not able to pay the more remunerative fee or the cases that are not well-to-do. They also treat the charity cases, and all such cases are referred to this or these doctors. When no man of the county society feels able to treat such cases some one selected person is advised to go to a clinic and prepare himself for such treatment. Then he returns and the cases are sent to him. This spring a non-medical man of the House, when it was called to his mind that a very large percentage of all the inmates of the State Hospital for Nervous Diseases were there directly or indirectly, as a result of some preventable G. U. disease, made the remark that it looked to him as though we should not have to spend so much money on the hospital but should do something to remedy this status, and in time our hospital would be less expensive. Right there, because of the vision of preventive medicine and when they all catch the vision, are we going to have our organization in shape, or are we going to fall in with State medicine?

Massachusetts and Indiana have organized permanent State Health Councils for the purpose of co-ordinating all State health work under one head. The following organizations and agencies were represented at the meeting held in Indianapolis March 21, 1923. Indiana Parent-Teachers' Association, Child Welfare Association, Indiana Dental Society, State Industrial Board, the Medical Department of the Indiana University, the State Federation of Women's Clubs, the Indiana Tubercular Association, the Nursing Bureau of Tuberculosis and Child Hygiene, the Indiana Medical Association, and the State Board of

Health. Such an organization would open up for us a great field of usefulness through co-operation and educational work. Educational propaganda would solve many of our difficulties if the public would only realize that medical education, board of health rules, and medical laws, were for their protection and not for the protection of the medical profession which needs no protection.

Dr. Darnall, in his retiring address before the Pulaski Medical Society last year, said that within the last forty years the population of the United States had increased 100 per cent and made the startling statement that during the same space of time insanity had increased 500 per cent. We wonder what that means. It is time for us to take stock and if our civilization has within it influences that are ultimately to destroy it, we must begin to act.

"Down through the ages untold thousands of mentally and physically unfit have been coddled from the cradle to the altar to become parents of defective families and these in turn have been protected and cared for in a way that has enabled them to reproduce and fasten their infirmities upon future generations until today the problem of the mentally defective in the home, in the school, in the street, in the brothel, in the police court, in the jail and in the prison, constitute sociological and economical problems of modern times."

I have been informed that 30 per cent of the patients confined at the State Hospital are there as an end result of lues or gonorrhea. Thirty per cent due to alcoholism, directly or indirectly, and it is getting to be more and more the consensus of opinion that alcoholism either in parent or grandparent is an etiological factor in epilepsy. A good per cent of the balance are feeble-minded as a result of heredity. We may not be able to reduce that insanity, due to alcoholism, we leave that to the commonwealth, but a campaign of education, prompt treatment and sufficient follow-up treatment should almost eliminate that 30 per cent of the first class. I have been informed by the State Health Officers that we have no law that prevents any person of whatsoever moral character or whatever mental capacity to enter into wedlock. A male or female known to be infected of syphilis and gonorrhea or both, may, if he or she is so

fortunate, be united in marriage tomorrow, to help raise our future citizens. A feeble-minded male or female, may be married to a person of either sound or unsound mind and there is no one to protest. It is a waste of time to prophesy as to their progeny. Is it not time that someone initiate a movement to relieve these conditions that are sure to give us weaklings and degenerates and what would be more proper than that this should be taken up by the medical profession.

In the light of our present knowledge the only way to reduce the number of feeble-minded is to prevent their birth. This would be possible to a great extent if every feeble-minded person and every potential carrier of defective germ plasm could be prevented from parenthood. Certain families should become extinct. This may be brought about by sterilization or segregation. The former is more effective and economical, but up to this time because of ill-advised sentiment and a general want of interest in its application it has received little attention. The rigid enforcement of a law to prevent the marriage of the mentally defective would make segregation unnecessary were no children born out of wedlock; but the mentally defective is not to be criticised, he knows no moral code.

Before finishing this address, there is one other subject to which I would like your attention to be called. I have reference to the doctor's relation to public affairs. I am sorry to report that in many instances, the business man's estimation of the doctor as a useful citizen outside his profession is not the best. It seems as if too often there is a lack of understanding; they do not understand our ethics. The newspaper man cannot see why we refrain from publicity. None of them grasp the idea that the wonderful gratis service we do without the hope of fee or reward for suffering humanity can in any way relieve us of financial and personal aid of what they call public service. They oftentimes think us selfish, and jealous and at times malicious, neglectful and mercenary. I would say that at least, at all times we are not tactful. Our association in the different civic organizations is helping our standing, and let us never lose an opportunity to sell ourselves to the community in which we live by measuring up to that wonderful motto of the Rotary Club: "Service, Not Self. He Profits Most Who Serves Best."

A golfer is a man who wears knee pants and seldom works after 2:00 p. m. in the summer.—Hygeia.

VACATION RECIPE.

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Insulin-Toronto.—A brand of insulin. It is marketed in 5 c. c. vials containing 10 units in each c. c., and in 5 c. c. vials containing 20 units in each c. c. Connaught Antitoxin Laboratories of the University of Toronto, Toronto, Ontario, Canada.

Quinine Ethyl Carbonate.—The quinine ester of ethyl carbonic acid. Quinine ethyl carbonate was first introduced as euquinine. It is used in place of quinine sulphate and similar soluble quinine salts when a practically tasteless quinine compound is preferred.

A SAD AND UNUSUAL COINCIDENT.

Two members of the Arkansas Medical Society, both of whom took an active part in the proceedings of the annual convention of the society at Hot Springs in May, died in much the same manner, both suddenly and unattended, both seated in their chairs.

Dr. Oscar E. Jones of Newport, 40 years old, had suffered the previous evening with heart attack. He had planned to leave the next day for the Medical Reserve training camp, but was persuaded to remain in his room and rest. When his sister-in-law entered his room some time later she discovered his dead body seated in his chair.

The other member who died under like circumstances was Dr. A. U. Williams of Hot Springs, who was found in his office, his feet on the desk in front of him.

It is a further coincidence that Dr. Jones was chairman of the Committee on Necrology, at the Hot Springs meeting, little thinking as he assisted in preparing resolutions on the deaths of members who had died during the year since the last annual meeting, that in a few weeks he also would join the silent majority. Truly in the midst of life we are in death and no man knows the day nor the hour of his summons.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

(EDITOR'S NOTE.—We regret to say, owing to the secretary's absence and some unavoidable delays, this issue of the Journal will reach our members much later than usual. We ask your indulgence and request that you pass lightly over the seemingly bad service.)

OUR PRESIDENT'S ADDRESS.

Many valuable suggestions and ideas were brought out in the annual address of the retiring president of the Arkansas Medical Society, Dr. Robert Caldwell of Little Rock, delivered at the Hot Springs meeting, and which will be found in full on the first page of the reading matter in this issue of the Journal.

There certainly is food for thought in the passing of the oldtime "family doctor." The family doctor had the confidence and love of his patients scarce second to that given the preacher. To what extent the confidence and faith contributed to the "healing" of the patient can not be set forth. It is an unknown quantity, but that they were potent factors there can be no doubt. Dr. Caldwell is eminently correct in his statement that in many cases the mere presence of the family doctor was sufficient to tide a patient through a crisis.

In maternity cases the confidence of the prospective mother is half the battle. The family doctor also has been the recipient of more sacred confidences, more secrets of family history than has the ministry. The children loved him and the calling in of the doctor had no terrors for them. He was the friend, as well as the family doctor, beloved by every member. And as Dr. Caldwell points out, such was the faith in him that pills of bread and sweetened water were more likely to effect a "cure" than the nostrums, however potent, of a strange physician.

Dr. Caldwell does not criticise specialists nor underrate the value of laboratory diagnosis, but he does decry a tendency to rely too fully on these scientific accessories to correct diagnosis as against the old time bedside examination and a full knowledge of the idiosyncrasies of the patient and the indicated disease, pointing out that laboratory work and even the Wassermann blood test are not always final and to be relied on absolutely.

He has something worth noting to say about "cults." He freely admits that despite the

idea that homeopathy and eclecticism once were believed to be transitory "cults" which soon would pass. But they have not passed; on the contrary they have grown. He suggests that like St. Paul we "examine all things, hold fast to that which is good." He is correct that something perhaps may be learned from all branches of the healing art.

All that Dr. Caldwell said about the duty of the State to properly support the Medical School and to raise rather than lower the standard, must be heartily endorsed. He grapples with a difficult problem when he suggests possible solution of the difficulties of coping with disease, preventive and otherwise, in sparsely populated mountain districts. The idea of a subsidy he rejects as not practical. He rather favors the plan of scholarships to be awarded young men from the rural districts, based on promises to remain in practice in their communities for a certain term of years. There are really too many ideas in the splendid message of Dr. Caldwell to dilate upon. We hope every reader of the Journal will read the full text. It will be time most profitably spent.

Personal and News Items.

Drs. W. A. Kriesel and W. E. Jones of Little Rock, spent the past month attending the Mayo Clinics at Rochester.

Announcement has been made of the marriage of Miss Ida Neumann of Stuttgart to Dr. A. D. Cathey of El Dorado.

Missouri and North Arkansas Railway Surgeons met jointly with the White County Medical Society in Searcy, July 16th.

Dr. E. T. Ponder wishes to announce that he has re-entered private practice with offices in the Boyle Building and will specialize in internal medicine neuro-psychiatry.

Dr. W. T. McCurry has gone to Canada and will return by way of Boston and New York, where he will do post-graduate work. He expects to be away about two months.

Dr. J. B. Crawford, formerly of Benton, Arkansas, who recently completed a post-graduate course in Eye, Ear, Nose and Throat Hospital, Tulane University, has opened an

office in the Donaghey Building, and will be associated with his brother, Dr. S. R. Crawford. Practice limited to eye, ear, nose and throat.

LOCATION FOR DOCTOR.—Montrose, Arkansas, is a town of five hundred inhabitants, with good churches, two good high schools, bank, cross railroads, cross pike roads, and no active practitioner of medicine.

Dr. E. D. Erwin came to Montrose two years ago, and left to take a big contract practice. When he left he was collecting two hundred dollars a month. There is a great deal of insurance work, and the railroad appointment goes with this practice.

For further information, write either Dr. G. W. Fletcher (retired), or Dr. E. D. Erwin, Jerome, Arkansas.

CORRESPONDENCE.

Arkansas Medical Society, Little Rock, Ark.

Kind Sirs—Our community is in need of a physician, our physician having left last spring and retired from active practice. We have a good field here, nine miles being the nearest town to a doctor. We did not know just how to go about finding a physician for the place, but judged you might through your society, be able to locate some one. Any interest and assistance you may render will be greatly appreciated by the community.

Respectfully,

A. V. Spillman,
Brimson, Mo.

The Committee on Maternal Welfare of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, wishes to procure accurate information as to the progress which each State is making in the matter of maternal welfare, in order to formulate a report for its annual meeting in Philadelphia, September next.

The committee will be under many obligations if you will be kind enough to send them at your early convenience a brief synopsis of the results accomplished in your State, and most important, if possible, a contrast of the record of the clinics or regions where patients have been privileged to have pre-natal care, with the statistics of the community in general where no supervision has been afforded the prospective mothers.

ERRATA.

Dr. J. D. Southard's excellent essay on Radiotherapy in our June issue was marred by several printer's errors, which we deeply regret.

Page 7, second column, around cut should read:

"And if judiciously administered, this entails little systemic disturbance. He says, for all widespread conditions, x-rays are considered preferable to radium."

Page 8, second paragraph, first column, should read: "several years after treatment, and many incurable cases"

Page 8, second column, fourteenth line from top should read: "ankle, hand, os ilium, humerus, knee and sternum."

Page 9, first column, near bottom, should read: "any tuberculous condition of the bones"

THE AMERICAN MEDICAL ASSOCIATION AT SAN FRANCISCO.

The seventy-fourth annual session of the American Medical Association at San Francisco was the largest meeting ever held on the Pacific Coast. The meetings of all sections, including the House of Delegates, the Scientific and Commercial Exhibits, were held in the civic auditorium. This enabled the members to go rapidly from one meeting to another in the various sections which were of particular interest to the individual physician.

Of particular interest in the scientific sessions were the symposiums on diet, on the mental health of the child and on preventive medicine.

The weather during the entire session was clear and the range of temperature varied but a few degrees.

Clinics in all departments of medicine were held before and after the meeting. The social features were such as to occupy all the spare time of the delegates and members.

Arkansas was honored by one of our delegates being placed on the Reference Committee, pertaining to Hygiene and Public Health.

The election of Dr. William Allen Pusey of Chicago as president-elect is a recognition not only of leadership in dermatology, but also of personal service to the American Medical Association and to medical science.

Chicago was selected for the meeting place in 1924.

RECIPROCAL RESPONSIBILITY OF THE HEALTH OFFICER AND OTHER PUBLIC OFFICIALS.

Osear Dowling, New Orleans (Journal A. M. A., July 28, 1923), sees no reason why the principles of preventive medicine should not be taught in a modified form and in an interesting fashion throughout the whole school life. Many children now teach their parents some of the fundamental rules of cleanliness and sanitation. Much could be accomplished in this way toward the eradication of the acute infectious diseases, including all malaria and hookworm infection. The introduction of rational sex education into the schools would go far toward the prevention of the misery and degradation which so often are the accompaniments of venereal disease. There is no doubt that, were such instruction logically and tactfully carried on, it would react favorably on the eugenics of the race. But all this requires co-operation on the part of others, and co-operation presupposes understanding. It is the understanding which is deficient. Public officials are responsible to the public, in theory at least. Usually, the public concerns itself little about its officials; as a rule, it seldom knows of but few of them unless the latter have for one reason or another occupied a prominent place in the public eye. The public, too, is prone to forget, and so long as affairs progress passably well no one bothers much about public officials, having too many other things to attend to. That this indifference is more apparent than real, and that the public has at least a subconscious interest becomes promptly manifest in times of stress and calamity. In such an emergency, the public official who does not measure up to the proper stature in popular opinion receives unqualified condemnation; his responsibility to the people will become manifest with drastic suddenness. The health officer of a State, parish or municipality carries a burden of responsibility which at times is even greater than that of the chief executive. If the powers that be, officials of departments of State—executive, legislative and judicial—presidents of universities, deans of medical colleges and presidents of volunteer organizations, would come to an understanding, public education in public health would follow, and public support, financial and moral, would be assured.

PROCEEDINGS
OF THE
FORTY-EIGHTH ANNUAL SESSION
OF THE
Arkansas Medical Society

Hot Springs, May 2, 3, 4, 1923

HOUSE OF DELEGATES

FIRST DAY.

Wednesday, May 2, 1923.

The House of Delegates was called to order by the President, Dr. Robert Caldwell, at 10:00 o'clock, a. m.

The President appointed the following Credentials Committee: Dr. L. Kirby, Dr. J. B. Dooley and Dr. J. M. Lemons.

Thereupon a recess was taken for five minutes pending the report of this committee:

Dr. Kirby: Your Committee on Credentials wish to report that we have examined the list of delegates in the hands of the Secretary, and find that the members so designated are entitled to represent their respective county societies at this meeting.

On motion the report was adopted.

President Caldwell: I want to read Sec. 3 of Chap. IV: "A majority of the delegates registered shall constitute a quorum." And also read from Sec. 6 of Chap. VII: "In case of a vacancy in the office of delegate, the Council shall have authority to seat any member of that county society in attendance at said meeting as delegate, with full right to perform all the duties of that office." I read these because, if the delegate of some county called is not here, instead of seating a delegate then by the House of Delegates and take up a great deal of time, the seating of a delegate from that county will be handled by the Council at noon today.

The roll was here called, and a quorum was found to be present.

On motion, the reading of the minutes of the last annual meeting was waived and the same were adopted, as published in the Journal.

The President appointed the following as the Reference Committee: Dr. Wm. Breath-

wit, Dr. M. L. Norwood and Dr. Sam Albright.

The President here read his address to the House of Delegates.

PRESIDENT'S MESSAGE TO THE HOUSE OF DELEGATES.

You will not be burdened with a long address, but there are a few things I would like to discuss in this, the executive meeting. Two years ago, the council hired an attorney to look after the Medical Society's interests. This attorney has rendered valuable service at numerous occasions as questions would come up as to the publications and advice in regard to letters sent the Secretary, and as a consultant in general for the different officers of the State societies as regards things medical.

He was very valuable in the drafting of the Medical Practice Act intended for the last Legislature, and because the Act was not introduced is no reflection on him.

With the concerted determination of our professional brothers in the House and Senate to tear down the superstructure of the practice of medicine, to lower the qualifications to enter medical school and give us the standards of twenty years ago, we knew better than to introduce any medical bill. It would have been amended so that the framers would have known it not. I would recommend that you pay the attorney and that he be discharged with honors. I would also ask that you acquaint yourself as to the inclination of our future legislators and work for men that stand for higher education and progress.

Whether such men are doctors or not makes little difference to me. A doctor in the House or Senate that does not affiliate himself with medical society work or organized medicine will probably do us more harm than any layman. At this meeting of our legislature our Doctors were against A. Grade schools and it was even suggested that the Medical School let anybody enter, go to school one or two years and then practice a year or more and then finish his education later. Where would our medical bill have been with such opposition as that?

This society recommends certain men to the Governor to be appointed on a medical examining board. The examining board originates here. I believe that examining board should report to the State Society at its annual meeting, a resume of its work during the preceding year.

I believe to accomplish the most good to our doctors, we should turn these state meetings into so-called Grand Clinical meetings. If we were.

willing to hire a man and pay all his expenses we could induce some full time teacher of national note to come to our meetings and hold clinics and give us clinical lectures that would make our State meetings worth while. One or more such men could be procured and a postgraduate course given in a way. We could have a few papers by our own men as we thought best for the society. I would suggest that an appropriation of from \$500 to \$1,000 be given for such a cause and the program committee for the next state meeting be empowered to put on such a clinic and hire necessary clinicians. Of course the Society would pay all necessary expenses, such as railroad fare and hotel bill. I think the society should, this year, pay the railroad fare and hotel bill of our distinguished visitors who have so kindly consented to be on our program.

There are very few District Medical Societies in the State that are accomplishing very much, and I would suggest that you consider the proposition of having what you might call Group Medical Societies, and pay no attention to districts. For instance, a town like Pine Bluff, you could have affiliated with it the surrounding counties so that they could all belong to one Group Medical Society, and in that way the doctors in the more thinly populated counties could come in to Pine Bluff to the meeting once a month or once every two weeks or at some specified time. The same could be done at El Dorado or Fort Smith or at any other medical center. And I believe that in that way we could build up Group Medical Societies that would be better for us than to try to hold District Medical Societies as we have been trying to do.

I have one other suggestion to make in regard to needed State Legislation. There should be some arrangements made so that we could take up with the Governor at each legislature needed legislation, not only in the practice of medicine, but in all things that have to do with the health of the State, as sanitation, narcotic laws, quarantines, public clinics, the want of doctors in sparsely settled districts, and other questions that may come up from time to time. My idea would be to make ourselves consultants for the Governor and not wait to go before the legislature as wanting something for ourselves.

Secretary Bathurst: This address no doubt meets with your approval. It contains a number of very timely suggestions. If there is no objection, it will be referred to the Reference Committee.

President Caldwell: The next is the report of the Committee on Scientific Program, Dr. J. B. Dooley, Chairman.

Dr. Dooley: This committee very often has not very much to report. There is no occasion for it. Our work is announced before the annual meeting takes place. We put in considerable time, and have adopted a little different plan as to the number of papers, and the amount of clinical work. While it is a little bit of an innovation, we hope you will enjoy it and that the clinics will be appreciated; and, while we limited the number of papers, they will be read by our own men.

We trust the program will meet with your approval.

President Caldwell: The next is the report of the Committee on Scientific Exhibit, Dr. D. A. Rhinehart, Chairman.

REPORT OF THE COMMITTEE ON SCIENTIFIC EXHIBIT.

The Committee on Scientific Exhibit has little of importance to report. It has attempted to arrange an exhibit of interest to the members attending this meeting. While the exhibit is small it is composed of material of such nature that any physician seeing it cannot help but be benefited.

The exhibit at the last meeting of the Society was not well attended; too many of the men that attended it were taken there by the lapels of their coats, a practice that will not be repeated this year.

At the last meeting the Committee requested that money sufficient to defray necessary expenses connected with collecting and arranging the exhibit be allowed, a request that was ignored. The Committee wishes to repeat this request and hopes that either the Council or the House of Delegates will take the necessary action.

D. A. Rhinehart, Chairman,
S. J. Wolferman,
J. H. Chesnutt,

President Caldwell: What would be the average expense?

Dr. Rhinehart: I estimate it at not more than \$25.00. It requires a considerable amount of circulars issued, for the different members of the society to arrange an exhibit composed of material from their own society. Of course, the cost of printing, postage, etc., will all be included.

The submission of the reports of the Committees on Medical Legislation, Health and Public Instruction, and Cancer Research was deferred until the respective chairmen could be present.

Dr. Caldwell: The next is the report of the Committee on Workingmen's Compensation and Social Insurance, Dr. J. M. Lemons, Chairman.

REPORT OF COMMITTEE ON WORKINGMEN'S COMPENSATION ACT.

Wish to make the following report:

We find on investigation that thirty-two states have the Workingmen's Compensation Law. It is claimed that Michigan has the best law of any of the States. Louisiana has one very much the same as Michigan; and, why not Arkansas come to the front and protect our workingmen? This act not only protects the working class, but protects the man he is working for. Take the industries of our State, both small and great. They all want their men protected by such an act.

I don't suppose there is any one who does not know the meaning of the Workingmen's Compensation Act; however, I can give it to you in a very few words.

In the event of a person receiving an injury that causes him to lose time, they will know by the nature of injury what the compensation will be; and, if they should be killed, their family will know how much they will receive for death.

Some states have a law that in the event of death, the family does not get all of the benefits at one time, but they get so much every week or every two weeks, as the case may be, once a month, and so on, so that dependents can't spend all of the benefits at once and then be in want.

Under the Workingmen's Compensation Act, there is no going to the courts—then to the Supreme Courts and reversed and new trial and then when the case is decided, the lawyer gets 80 per cent, and the poor man gets 20 per cent.

The working man should be protected in case of injury and the way to protect him is to have the Workingmen's Compensation Act—justice to both employer and employee.

Respectfully submitted,
J. M. Lemons, Chairman.

Secretary Bathurst: I move that this committee be known as the Committee on Workmen's Compensation, and that we discontinue the term Social Insurance. Motion seconded by Dr. Breathwit.

Carried.

President Caldwell: The next is the report of the Committee on Hospitals, Dr. A. C. Shipp, Chairman.

REPORT OF COMMITTEE ON HOSPITALS

We, the Committee, having investigated by visits and questionnaires the hospitals of the state, report as follows: From the standpoint of standardization practically no co-ordinated efforts have been made and no progress can be reported. In this connection, it appears to your committee that no substantial progress can be made until a state hospital association or a hospital section of the Arkansas State Medical Society is organized and stated meetings held with a definite program of standardization.

All the hospitals of the state from which we have heard, with one exception, have expressed a desire for a hospital association as a part of the Arkansas State Medical Society. With such an organization meeting annually at the time of the State Medical Association and with interim meetings of hospitals of each Councilor District working along a definite program more will be accomplished in one year than in ten without organization.

We heartily recommend such an organization and that the Committee on Hospitals arrange for such meetings with hospital managements as may be necessary for the forming of such an organization, the first annual meeting of which will be held at the next meeting of the Arkansas Medical Society and that necessary traveling expenses for this purpose be allowed for one member of the Committee (not to exceed _____).

Commendable progress in standardizing training schools for nurses is being made but much remains to be accomplished in this direction. Since the betterment of hospital service in every way, as well as the improvement of training schools hinge upon organization of hospitals, we urge the carrying out of the one recommendation

which was also urged by your preceding committee
A. C. Shipp, Chairman.

President: You have heard the reports of all these committees. Without objection they will be referred to the Reference Committee.

Dr. Hunt: Will it be out of order that this committee be carried over another year, and that this organization adopt this?

President Caldwell: It is not out of order, but I do not think it feasible. The incoming president will take care of that.

The reports of the Committees on Constitution and By-Laws, and the Gorgas Memorial Fund were deferred.

President Caldwell: We will hear the report of the Entertainment Committee.

Dr. Drennen: The President's Reception will be held this evening at nine o'clock at the De Soto Springs Pavilion. We want all of you to be there, and there will be such entertainment that comes only from the gentle folks and the waters that flow from these hill-sides. Be sure to get there. Those of you who happen to have your wives or daughters or sweethearts with you be kind enough to go to the Information Bureau, and there you will find somebody to take care of you, because we have a program outlined for the ladies, theater parties for them, all free, and something good to eat. Mrs. George B. Fletcher is chairman of that committee. (Applause.)

President Caldwell: The next is the report of the Council, Dr. Thad Cothorn.

Dr. Cothorn: I would like to ask for time to make my report in the morning. We haven't got our data correlated, as I haven't heard from all the councilors.

President Caldwell: The next is the report of the Secretary.

REPORT OF THE SECRETARY.

To Members of the House of Delegates, Arkansas Medical Society:

The following report is submitted for 1922-23:

Membership

At the close of the year 1922 our membership numbered 1148, larger by eight than ever before. This year to date 1020 memberships have been paid. We have added Marion County this year, as a new organization. With this addition it only leaves the following counties that show little interest in medical organization: Stone, Van Buren, Fulton, Sharp, Newton, Poinsett and Pike.

Our financial condition to date of this report is as follows:

Cash on hand at the close of last annual session	\$ 7,656.67
Received from annual dues....	\$3,324.00
Received for interest, Treasurer's account	144.71
Received for interest, Secretary's account	44.97
Received for advertising in Journal	2,364.12—\$ 5,877.80
Total	\$13,534.47
Current expenses as per itemized list (Statement attached)	4,357.22
Balance on hand at date of this report	\$ 9,177.25
Respectfully submitted, Wm. R. Bathurst.	

President Caldwell: The next is the report of the Treasurer.

ANNUAL REPORT OF THE TREASURER OF
THE ARKANSAS MEDICAL SOCIETY
FOR THE FISCAL YEAR ENDING
MAY 1, 1923.

Cash on hand from last year..	\$7,656.67—\$7,656.67
Interest received on Savings Account	144.71
	\$7,801.38
Vouchers cancelled, Nos. 117 to 141 inclusive	4,357.22
Balance on hand	3,444.16
Respectfully submitted, Dr. R. L. Saxon, Treasurer.	

Current Expenses During the Past Year As
Follows:

Voucher No. 117—Southern Trust Co.....	\$ 22.50
Voucher No. 118—F. S. Overton.....	50.00
Voucher No. 119—Wm. R. Bathurst, Sec.	1,249.97
Voucher No. 120—Hotel Marion.....	21.00
Voucher No. 121—Parke-Harper Printing Co.	18.50
Voucher No. 122—Wm. R. Bathurst, Sec.	10.00
Voucher No. 123—F. S. Overton.....	50.00
Voucher No. 124—Noel Loeb.....	247.40
Voucher No. 125—Central Printing Co.....	476.25
Voucher No. 126—F. S. Overton.....	50.00
Voucher No. 127—F. S. Overton.....	50.00
Voucher No. 128—Wm. R. Bathurst, Sec.	20.00
Voucher No. 129—F. S. Overton.....	50.00
Voucher No. 130—Parkin Printing Co.....	3.35
Voucher No. 131—Central Printing Co.....	643.00
Voucher No. 132—F. S. Overton.....	50.00
Voucher No. 133—F. S. Overton.....	50.00
Voucher No. 134—F. S. Overton.....	50.00
Voucher No. 135—F. S. Overton.....	69.08
Voucher No. 136—Democrat Printing Co.	7.25
Voucher No. 137—Central Printing Co.....	756.42
Voucher No. 138—F. S. Overton.....	150.00
Voucher No. 139—Wm. R. Bathurst, Sec.	10.00
Voucher No. 140—F. S. Overton.....	50.00
Voucher No. 141—Central Printing Co.....	202.50
	\$4,357.22

President Caldwell: These reports will be referred to the Council. The next is the report of the Delegates to the American Medical Association, Dr. Geo. S. Brown.

REPORT OF DELEGATES TO THE 1922
MEETING OF THE AMERICAN
MEDICAL ASSOCIATION.

The House of Delegates of the American Medical Association met in the St. Louis Medical Society Building, May 22, 1922, with more than a quorum present.

Among the outstanding reports pertaining to the various Councils of the A. M. A. it seemed to us the Council on Pharmacy and Chemistry was the most favored. This department has established a world-wide authority derived from the high character of its achievements. Physicians of Arkansas are asked to co-operate with them in securing drugs and remedies that may be expected to have therapeutic value. Also to see that all products presented to you have the approval of the Council of Pharmacy and Chemistry.

A resolution was adopted vigorously protesting against the approval of the U. S. Government of the school of Chiropractic as a means of vocational training for disabled ex-service men. Despite this resolution, we have recently been advised that the training of veterans as chiropractors still goes on by the Veterans' Bureau. Your delegates think it advisable for the Arkansas Medical Society to adopt a resolution of the same tenor, and to send copies of it to the President, the Director of the Veterans' Bureau and to both Senators and to each of our Representatives in Congress.

We further recommend that the Arkansas Medical Society adopt a resolution asking that the medical profession be given an opportunity to consider and, it desires, to be heard with respect to proposed regulations under the Harrison Narcotic Act, so that each regulation may be framed at least with a full knowledge of the views of the profession. Regulations are now issued without those who must live under such regulations ever seeing a draft of them, or having been consulted with respect to the matter.

We feel that this subject should be properly considered by the Arkansas Medical Society and suggest the adoption of a resolution, asking that no regulation be promulgated under the Harrison Narcotic Act, relating to the medical profession, except in case of emergency, until after the proposed regulation has been published, and those interested have been given an opportunity to submit their views. If such a resolution be adopted, a copy should be sent to the President, the Secretary of the Treasury and the Commissioner of Internal Revenue.

The late Dr. Craig's report of the Secretary gives a total membership of 89,048.

The report of the Council on Medical Education and Hospitals shows that great progress is being made in the elevation of standards of medical education and the improvement in quality of physicians entering practice.

Time will not permit going into further details of the convention; but, before closing, we wish to give as a result of our observation, that we can endorse unqualifiedly the present management and the administration of the American Medical Association.

Respectfully submitted,
Geo. S. Brown,
Wm. R. Bathurst.

Dr. Brown: I want to say this before closing: It is a known fact that men who are sent there as delegates for the first time know little absolutely of what is going on and receive lit-

tle recognition. Dr. Bathurst is perfectly familiar with that matter, and makes you a good representative, and I want to recommend that he be continued in that place for some little time to come. For, as Dr. Craig said to me, "You are not worth anything the first time you come; but after you have been here for some time you are worth something." I want to recommend that Dr. Bathurst be returned as delegate this year.

Secretary Bathurst: I think that the resolution referred to in our report, that we oppose the U. S. Veterans' Bureau recognizing the School of Chiropractic by sending crippled soldiers thereto, should receive some consideration. Also, if they wish to make any changes in the Harrison Narcotic Act. This report makes several suggestions, and I hope the Reference Committee will give them earnest consideration.

President Caldwell: That report will be turned over to the Reference Committee.

The selection of the Nominating Committee being in order, the following selection was made:

PERSONNEL OF NOMINATING COMMITTEE.

First Councilor District—Dr. O. V. Smith, of Bay.

Second Councilor District—Dr. J. M. Jelks, of Searcy.

Third Councilor District—Dr. J. O. Rush, of Forrest City.

Fourth Councilor District — Dr. Wm. Breathwit, of Pine Bluff.

Fifth Councilor District—Dr. F. E. Baker, of Stamps.

Sixth Councilor District—Dr. M. L. Norwood, of Lockesburg.

Seventh Councilor District—Dr. J. M. Proctor, of Hot Springs.

Eighth Councilor District—Dr. J. B. Doo-ley, of Little Rock.

Ninth Councilor District—Dr. J. C. Blackwood, of Harrison.

Tenth Councilor District—Dr. Thos. Douglass, of Ozark.

President Caldwell: The selection of members to fill the vacancies on the Board of Medical Examiners is not limited to delegates, and that will be taken up on the last day. It

will be in order at some time between now and the last day to get together and select three names from the districts in which there are vacancies for the Governor to make his selection.

On motion, the House of Delegates adjourned to meet the following day at 8:30 o'clock.

HOUSE OF DELEGATES

SECOND DAY

Thursday, May 3, 1923.

The House of Delegates was called to order by the President, Dr. Caldwell, at 9:00 o'clock, a. m., a quorum being present on roll call.

President Caldwell: We will have the report of the Committee on Gorgas Memorial Fund, Dr. George B. Fletcher, Chairman.

Dr. Fletcher: This committee is composed of myself, Drs. Williamson, Westerfield, Rice and Early. I have been able to get in touch with Dr. Westerfield here, but unfortunately I missed Dr. Rice—I have a check from him however—so that it is a sort of one-horse report. I hope it meets with the approval of the other members. We wrote each county medical society a letter setting forth the purposes of the fund, and requesting a donation from each society. We received donations from societies in the following amounts:

Pulaski County	\$25.00
Jefferson County	5.00
Garland—Hot Springs	50.00
Desha County	10.00
Sebastian County	25.00
Faulkner County	5.00
Benton County	10.00
Total.....	\$130.00

I am very sorry to say that only a few counties responded to this request and all I have to turn in to the State Society is \$130.00. I would like to offer a suggestion that the House of Delegates make some effort to raise this amount to at least \$200.00, so that Arkansas will be well represented in the final report to the American Medical Association.

(EDITOR'S NOTE—Since the report was read the following subscriptions have been received):

Miller County	\$10.00
Boone County (L. Kirby)	5.00
White County (J. L. Jones).....	5.00
Craighead County (Thad Cothorn) ..	5.00
Washington County (E. F. Ellis)....	5.00
Monroe County (E. D. McKnight)...	5.00

Making a grand total of \$165.00. Owing to some general reorganization of the National Committee and of the plans, the State Secretary is holding the above subscriptions with the Southern Trust Company, listed "Gorgas Fund," Arkansas Medical Society, until the reorganization is completed.)

President Caldwell: This report, on account of the request for finances in it, will be referred to the Council. They have power to draw on the treasury for the money. The next report is that of the Committee on Health and Public Instruction, Dr. C. W. Garrison.

REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION

We, your Committee, beg to submit the following report:

In accordance with the wishes of the House of Delegates of the American Medical Association, at its meeting in New Orleans three years ago, your committee has endeavored to carry out the program as suggested in meeting with the State Teachers' Association, and in other ways aid in securing the co-operation of the public school teachers of the State in furthering physical education and adopting a health program in each school. We desire to report progress as evidenced by the following statement from the Superintendent of Education, Hon. A. B. Hill:

"In my judgment the health program is the most important phase of the work of the Educational Department. It is absolutely necessary that the child be given proper attention as to its physical condition and development in order to make any material educational progress. Personal hygiene and proper sanitation and hygiene of the school buildings and premises are imperative. The teachers of Arkansas are heartily in accord with the health program and you can count on them to aid the health authorities and medical profession in eventually reaching every pupil in the State.

"It is the purpose of the State Department of Education to co-operate vitally with every agency which has in mind the upbuilding of the physical condition of the children."

Your Committee has set a precedent, it believes, in not expending the \$200.00 set aside by your Honorable Body for the printing and distribution of educational literature, due largely to the fact that the State Board of Health is now preparing to equip a health truck and carry visual education to the rural districts in the form of suitable health films, slides, exhibit material, etc. The Arkansas Tuberculosis Association has generously agreed to supplement the funds for carrying out this program, and the committee now respectfully requests that the amount of \$200.00 set aside by your Honorable Body at the last meeting be re-appropriated together with such additional amount as in your judgment should be made available to aid in this program.

The Health Truck will operate largely under the auspices of the various County Medical Societies, and the members will be expected to personally aid in securing corrective measures for defective children and in the furtherance of the maternity and infancy program. It is the plan to have members of the medical profession to treat free of charge the indigent cases and establish a standard of fees for those who are able to pay and who may come to the clinics which

will be established as a part of the program. A similar method is adopted in other states and seems to be the method most satisfactory to the health authorities, the medical profession and the public at large.

It is further respectfully suggested that if the plan meets the approval of the Arkansas Medical Society, that suitable resolutions be adopted endorsing it.

Respectfully,
Committee on Health and Public Instruction.
C. W. Garrison, Chairman.

President Caldwell: There was \$200.00 appropriated for your committee last year. Is that right? Has the money been used?

Dr. Garrison: No.

President Caldwell: Do you expect to use it?

Dr. Garrison: The time is up now.

President Caldwell: It has not been used.

Dr. Garrison: No. Speaking very frankly, Mr. President, and gentlemen, I was not on the committee two years ago, and during this past year I didn't wake up to a realization of the fact that I had been placed back on the committee until late in the year. I talked to Dr. Bathurst and he seemed to think the idea was a good one. We had been publishing for a number of years malaria and typhoid catechisms, which have been supplemented by other publications, from funds from the State Board of Health, and the schools were pretty well supplied. We felt it was not good business to have them printed when there was no great need for them at that time, and for that reason this fund has not been expended.

President Caldwell: Any new business to come before the body?

Dr. Dooley: I would like to make a motion as to a resolution regarding the diphtheria toxin anti-toxin which the health authorities requested that the Pulaski County Society adopt and we did so, and they requested that it be read before the House of Delegates.

WHEREAS, Diphtheria has been regarded for centuries as one of the most dreaded of the diseases of childhood.

WHEREAS, The introduction of anti-toxin greatly reduced the mortality. The morbidity was not decreased until immunization by the use of toxin anti-toxin was discovered.

WHEREAS, The results obtained by Drs. Wm. H. Park and Abram Zingher of New York, in which they certify that among 350,000 children tested, and when Schick positive, injected, they have had no serious accidents or any bad after effects. After six (6) years of continuous use they consider the method harmless and the immunity lasting, probably for life.

WHEREAS, Reports show a remarkable falling off in number of cases in all places where toxin-anti-toxin has been given. Parents and others having the care of children are realizing that it is a duty they owe the child, to protect it from Diphtheria.

BE IT RESOLVED That the Arkansas Medical Society hereby endorses the proposal (idea) of immunization of all susceptible school children against Diphtheria as well as against Smallpox.

Dr. Thibault: I move the adoption of the resolution offered by Dr. Dooley. I think it is one of the most important things that we can bring forward. It is surprising, with the length of time and the amount of literature that has been printed in telling the benefits of small-pox vaccination that, in taking case histories, you will find so many people, who are supposedly educated, that are not vaccinated against small-pox. And I believe that it is up to the medical societies to continue to educate the people along the lines of preventive medicine, especially with reference to the toxin anti-toxin, vaccination for protection against diphtheria, and the ordinary vaccination against small-pox.

Dr. Rush: I second the motion.

Dr. Breathwit: I want it particularly understood that I don't oppose the doctor's resolution, but I do regard the problem as a problem peculiar to each community. If the adoption of this resolution by the Arkansas Medical Society were to carry with it any degree of authority, the antagonism we would encounter would be very displeasing. The toxin anti-toxin method is too new to our people for them to appropriate it to their use at once, without a wider thought and a wider expression and a better acquaintance. My reason for saying this is that we have made a very diligent effort in Pine Bluff to get the doctors in Jefferson county to adopt the procedure there so that we could apply it to our schools, and I really hesitate to tell you just how much antagonism we met in the ranks of the profession. Now, if we meet antagonism in the ranks of the profession, it will go through the State. I want it understood that I am not antagonistic. I am thoroughly in favor of it, but I do think it would be unwholesome for the Arkansas Medical Society to adopt a thing like that and encounter the antagonism that we surely would arouse.

Dr. Southard: It strikes me that would be the very reason why this society ought to adopt this resolution. If the Arkansas Med-

ical Society goes on record as endorsing this thing, it ought to help to remove some of this opposition, it seems to me, and help this good work along throughout the State. This doesn't carry with it any obligation particularly, but it is merely a recommendation, so to speak, as I understand it.

Dr. Cothorn: I think, like Dr. Southard, that the Arkansas Medical Society should advance the standard in place of holding back to those in the back-woods, as Dr. Breathwit might have suggested, and I think we should go ahead and adopt this and perhaps remove some of the objections to it.

Dr. J. L. Jones: I have for several years been connected with our health officer, and I know the trouble that he has passed through. At this time everything is fine. Now, if the medical society were to adopt this resolution, it would be notice to all the counties that we have made a great effort to carry this through. The men in our county have quit objecting to our vaccinations. We have no trouble now; we did at the start. They almost ran our health officer from the northwestern part of our county a few years ago. Now I believe this society should stand behind this resolution. It would be the thing for them to do.

Dr. Douglass: As I understand the resolution, it doesn't require that it be made compulsory, but that it be endorsed. That is, we merely recommend that to the society, and not to enforce it.

President Caldwell: This is a very important subject, it seems to me.

Dr. Hunt: I was really startled when Dr. Breathwit got up. My county is in favor of it. I think that we had better go down to Jefferson county and do some missionary work.

Dr. Breathwit: Maybe I am infringing when I speak twice. I am sorry I am misunderstood. Apparently you have misunderstood my statement. I said here that I heartily endorsed it. Dr. Jones said they will be run in. One defeat hurts a thousand times more than a thousand wins. If we can advertise and educate and teach the people the advantages that accrue from these vaccination measures, without encountering their antagonism, we take a long step forward. Whereas, if we encounter their antagonism as we surely will and you will when you go to apply it, whenever you make a rule by

which the schools are required to have their children take the toxin, you will be sat on harder than you were ever before, and don't think you will not. One defeat will hurt so badly that you will be thrown back five years. In New York City it took them six or seven years, but they have laws that we don't have in Arkansas. And moreover, New York City is practically the only city in the whole state of New York that has this law. The public press and medical journals will soon teach the people the wonderful advantages that accrue from this measure, and I think we would be wise in sitting still until this propaganda is spread abroad, until the people begin to understand these vaccination measures. Personally, I am for it. We were the first county in the State of Arkansas to undertake it. We tried it two years ago and we met so much antagonism that we had to drop it.

Dr. Thibault: I am absolutely opposed to the attitude that Dr. Breathwit takes. Any advance is met with opposition, and the man that is afraid of opposition doesn't deserve to be a man, I don't care who he is. We vaccinate every child that goes into the schools in our district at Scott's. We have got a big, consolidated district that takes in ten thousand acres, and it is well populated. The thing to do is for the doctor to vaccinate the young children first and send them there, and then tell the others that they can't get in without it. We had a bunch of people there that were religiously opposed to vaccination, and had moved from one part of the state to another because they thought it was wrong. They sent the children to school, and the mother came down there and she said she was a fighter and big enough to fight. We told her it didn't make any difference, and "if this don't suit you, your children can't go to the school. Your children have to conform to the same rules that any other children that go to the school have to conform to." But, if you are not ready to take a little opposition, a little sitting upon, as the doctor expresses it, there is no use in acquiring opposition. If the bootlegger doesn't acquire opposition, nobody bothers him. So, with the bank robber and the murderer. And people that foster ignorance that perpetuates diseases acquire it, until they are opposed by intelligence and law and rule.

The resolution was adopted.

President Caldwell: I am going to drop back a little and ask if Dr. Runyan is prepared to give his report on Medical Legislation.

REPORT OF COMMITTEE ON MEDICAL LEGISLATION.

Your Committee on Medical Legislation beg to report as follows:

Much time and study were spent on the drafting of a bill for the creation of one examining board. On account of much opposition to this bill, as well as opposition to the medical college bill, work was concentrated on the passage of the medical college bill, which was successful, and the one-board bill abandoned until next session of the Legislature.

Respectfully,

J. P. Runyan,
Chairman.

President Caldwell: We will have report of Committee on Infant Welfare, Dr. Morgan Smith, Chairman.

REPORT OF THE COMMITTEE ON INFANT WELFARE.

To the House of Delegates:

We, your Committee on Infant Welfare, beg to submit the following report:

In order to obtain information upon which to base a more intelligent functioning of this committee, a questionnaire was sent to each of the Secretaries of the component societies, the replies to which disclose the following:

1. There are but three physicians in the State who limit their practice to pediatrics.
2. Eleven devote considerable attention to diseases of children, and have had post-graduate work in the specialty.
3. No special or other efforts have been made by a county society to promote a better understanding of the diseases which affect children and measures of prevention.
4. No county society has sponsored public meetings with a program dealing with infant welfare.
5. Five counties have child welfare organizations, and great public good has been the result. Red Cross and school nurses have been active in promoting these organizations.
6. To the question, "Have you any suggestions to offer as to how the Infant Welfare Committee can be of benefit to the profession and public?" thirty out of forty-one replies received recommended financial aid from the society so the committee could broaden its work and actually do the things for which the committee was created.

On account of the incomplete reports received by the State Board of Health, statistics obtained from the Secretary are not to be wholly relied upon. But they do show a definite trend, and the appended table furnishes an interesting study. It is quite obvious that some concerted and well-planned action should be taken to educate the profession and the public in the prevention of malaria, the diarrhoeas (infectious and non-in-

fectious), pertussis, diphtheria, pneumonia and typhoid fever.

The committee recommends the following:

1. That the sum of \$500.00 or so much thereof as may be needed, be assigned to the committee for its use.

2. That the committee be enlarged to seven members, each Congressional District being represented by one member.

3. That the committee prepare a suitable program to be submitted to each county society, with the request that it be rendered at a meeting at which no other subject be presented.

4. That at least once yearly the committee shall prepare a program for a joint meeting of the county society and the public.

5. That each county society give aid and encouragement to the organization of county welfare organizations.

6. That inasmuch as pediatrics is a definite specialty and requires for its successful practice special training, physicians should devote more study to the subject, for no substantial progress can be made unless normal growth and development be well understood and the causes which produce infant mortality be reduced.

7. That with the funds appropriated by the Council, the committee shall conduct a campaign of education, deliver or provide for speakers on the occasion of public meetings held under the auspices of county societies, and to endeavor as far as possible to fulfill the purposes for which this most important committee was created.

Respectfully submitted,

Morgan Smith, Chairman,
H. H. Niehuss.

(Editor's Note: The chairman of this committee supplemented his report with a statistical table showing morbidity encountered during the year 1922. Lack of space precludes inserting here.)

Dr. Dooley: There was a question that came up in the Pulaski County Medical Society in regard to honorary membership in that society, and the desire to have such a membership created in the Arkansas Medical Society. We considered the matter, and adopted a change in our constitution and by-laws creating honorary membership to those members who have reached the age of 65 years, and who have been members of the society for the last fifteen years, and of course excusing them from further payment of dues; creating an honorary membership for those who desire it. And the request was made that our society recommend that this be brought up for consideration by the House of Delegates. So, with your permission, I will introduce this same resolution for consideration before this House, which I presume lays over for a year, that the Arkansas Medical Society create what is known as honorary membership for those who desire, who have

reached the age of 65 years and who have been members for the last fifteen years, and to be excused from further dues. I am told that the American Medical Association regards this plan favorably, as far as the American Medical Association is concerned, but they will not take action unless the county and state societies do so.

President Caldwell: That will be turned over to the Reference Committee, and presented in the form of a resolution or an amendment to the constitution, which will be taken up when the Reference Committee gives their report. The Secretary has something to say before we adjourn.

Secretary Bathurst: The Council has seen fit to elect Dr. Lamb of Greene County, Dr. F. A. Gray of Independence, Dr. T. B. Bradford of Monroe, Dr. H. H. Niehuss of Union County, to represent these counties, which did not report on roll call.

President Caldwell: During the recess between now and the Memorial Session, any one who hasn't registered and wishes to do so may register. There seems to have been a little uncertainty as to the Board of Medical Examiners. The question comes up whether they shall be selected by the House of Delegates or the General Session, and when it is done and when the final selection is made.

Dr. Thibault: As a matter of custom, the members, regardless of whether they have been members of the House of Delegates or not, have held a caucus and nominated a man who was elected by the House of Delegates. Their report was generally made on the last day, and you might say they made the selection, and we simply sanction it by vote.

Dr. Norwood: That's customary and the point we want to decide on. The report is made on the last day but the selection of that caucus is made some time previous to the last day.

Dr. Thibault: Yes.

President Caldwell: You get together to make the selection some time today.

Dr. Norwood: If in order, I will make a motion that we meet immediately after the adjournment of the General Session in this hall and make the selection and report tomorrow at the General Session.

Carried.

Dr. Thibault: I have some resolutions I wish to offer.

RESOLUTIONS IN SUPPORT OF COUNCIL OF PHARMACY AND CHEMISTRY.

RESOLVED, That inasmuch as there has been persistent and concerted attacks by so-called medical clubs, medical committees, and a certain class of medical journals directly and indirectly against the Council of Pharmacy and Chemistry of the American Medical Association and the new Journal Hygeia. And, since there is evidence that this campaign is fostered and at least partially financed by certain proprietary interests to whom enlightenment of the public means financial death.

IT IS FURTHER RESOLVED, That the Arkansas Medical Society endorses unreservedly the work of the Council of Pharmacy and Chemistry, and that it is the opinion of the Arkansas Medical Society that the Journal Hygeia is the most important forward step in medical education ever undertaken by organized medicine; because the application of the principles of preventive medicine are entirely dependent on the education of the public.

IT IS FURTHER RESOLVED, that this resolution be published in the next issue of the Journal of the Arkansas Medical Society, and a copy be sent to the Journal of the American Medical Association.

RESOLUTIONS CONCERNING CHIROPRACTIC.

WHEREAS, the Arkansas Medical Society is informed that the Veterans' Bureau has approved the practice of chiropractic as a suitable calling for disabled veterans, by training such veterans as chiropractors at public expense; and

WHEREAS, chiropractors assume as grave responsibility for the lives and health of the sick and injured as do physicians, which responsibility, in the judgment of the Arkansas Medical Society, no chiropractic school fits, or can fit, its graduates to assume with safety to the patient or to the public; and

WHEREAS, chiropractic itself is founded on an impossible and silly dogma, so easily shown upon reasonable inquiry to be such that adherence to it tends to discredit the mentality or the sincerity, or both, of those who follow it as a calling; and

WHEREAS, the chiropractic sect may be destroyed within a comparatively short time, through quarrels now in progress within it, and through a better understanding on the part of the public of the absurdity of its pretensions and the fallacies trained in it; therefore be it

RESOLVED, that the Arkansas Medical Society, having in mind the welfare of the public and of the veterans, respectfully, but forcibly, urge that training of veterans as chiropractors by the Veterans' Bureau be immediately discontinued, and protest against the expenditure of public money for the development of the chiropractic sect; and be it further

RESOLVED, that a copy of these resolutions be sent to the President of the United States; to the Select Committee to investigate the Veterans' Bureau, United States Senate; to the director of the Veterans' Bureau; to both our Senators and to each of our Congressmen, and to the press; and be it

FURTHER RESOLVED, that the officers of the Arkansas Medical Society be authorized and

empowered to do whatever may be necessary to effect the purposes of these resolutions.

Adopted.

The Secretary: The following telegram has been received:

Birmingham, Ala., May 3, 1923.

Arkansas Medical Society in Annual Session Assembled, Hot Springs, Arkansas:

Greetings. Hope you are having a most successful meeting. We have most pleasant recollections of our meeting in Hot Springs and of the hospitality of the profession of Hot Springs and Arkansas. We all want to come again. Southern Medical Association will operate a special train to the American Medical Association at Frisco. You are all most cordially invited to use our train. See May issue, our Journal, for details.

Southern Medical Association.

On motion, the House of Delegates adjourned to meet at 1:30 p. m. Friday, May 4, 1923.

HOUSE OF DELEGATES.

THIRD DAY.

Friday, May 4, 1923, 9:00 a. m.

The House of Delegates was called to order by the President, Dr. Caldwell, at 9:00 a. m.

President Caldwell: We will have the report of the Committee on Cancer Research, Dr. Dewell Gann, Jr.

REPORT OF CANCER RESEARCH COMMITTEE.

The name of this committee is a misnomer. It does not function as a research committee per se; and, in so far as we can ascertain, has never functioned as such. Neither has the committee been concerned with the abstracting of current cancer research literature.

There is very little new in the cancer field. Cancer remains a clinical entity whose etiology has not been proven. The hereditary problem is questionable and its transmissibility has been definitely accomplished in the lower animals only. No case of transmission from one human to another is on record.

The principal problem confronting us is that of Cancer Control by its early recognition and proper treatment through the educational movement of the American Society for the Control of Cancer.

It is estimated that 100,000 people will die from cancer this year and it is increasing as a national average at the rate of 2½ per cent per annum. In Arkansas the death rate in 1920 showed an increase of approximately 18 per cent over 1919. In February, 1920, the Arkansas State Committee of the American Society for the Control of Cancer was organized. During this year the message of hope of the national society was carried to every doctor and nurse and many of the people of the State. It is interesting to note the effect educational propaganda has had on the death rate statistics here. In 1921 there were 466 recorded cancer deaths, in 1922, 467.

In the early recognition lies the hope of cure. The textbook diagnostic points are obsolete and should not be depended upon by the clinician for diagnostic purposes. Biopsy is better than the watchful waiting plan. The early signs of cancer as compiled by the American Society for its Control should not only be familiar to the physician but to the individual as well.

Surgery, radium and deep penetrating x-rays are the methods of choice in the treatment of malignant disease. Each has a separate and distinct field of usefulness and in some instances a combination of one, two or the three is indicated. It is therefore recommended:

1. That the name of this committee be changed from the Cancer Research Committee to the Cancer Control Committee of the Arkansas Medical Society.

2. That Chapter VIII, Section 1, page 19, of the Constitution and By-Laws of the Arkansas Medical Society be amended to read, "A Committee on Cancer Control," and there be added Section 5, to read as follows: "The Cancer Control Committee shall be composed of five (5) members, appointed in accordance with the Constitution and By-Laws of this Society. It shall be the duty of the committee to employ every ethical means to disseminate educational propaganda regarding the early signs and proper treatment of cancer."

3. That this committee work in close harmony with the Arkansas State Committee of the American Society for the Control of Cancer.

4. That every member of this body be appointed a committee of one to examine all patients applying to him with suspicious early lesions and to interest himself in the movement to educate the public in the early signs of cancer, and

5. That this body appropriate the sum of three hundred dollars annually to be used for purchasing literature and disseminating and advertising the early signs of cancer and the importance of the early proper treatment.

Dewell Gann, Jr., Chairman,
Wm. Breathwit,
J. C. Hughes,
J. L. Greene,
O. H. King,
Wm. R. Bathurst,
Rufus Martin.

President Caldwell: That will be referred to the Reference Committee.

Dr. Douglass: I have a resolution to offer.

UNWISE LEGISLATION CONDEMNED.

Whereas, the recent Legislature of Arkansas did by special acts grant license to practice medicine in the State to incompetent men who could not pass the examination of the State Medical Board which is the legally constituted body to protect the public against the admission of unworthy and incompetent men to the practice of medicine;

Whereas, incompetent and unworthy practitioners of medicine are a source of great difficulty in the enforcement of the narcotic law. Violations of this law are truly alarming.

Therefore, Be It Resolved, that this society does most earnestly protest and condemn such unwise and dangerous legislation.

Carried.

On motion the House of Delegates adjourned.

The House of Delegates was called to order at 1:30 p. m. by the President, there being a quorum present.

President Caldwell: We will now have the report of the Nominating Committee.

REPORT OF NOMINATING COMMITTEE.

To the President and Members of the House of Delegates:

The Nominating Committee submits the following names to fill the respective offices for the coming year:

Respectfully,

M. L. Norwood, Chairman,
John M. Proctor, Secretary.

FOR PRESIDENT.

Dr. E. E. Barlow, of Dermott.
Dr. E. D. McKnight, of Brinkley.
Dr. W. T. Wootton, of Hot Springs.

FOR FIRST VICE-PRESIDENT.

Dr. J. O. Rush, of Forrest City.

FOR SECOND VICE-PRESIDENT.

Dr. J. C. Graves, of Locksburg.

FOR THIRD VICE-PRESIDENT.

Dr. S. J. Allbright, of Kensett.

FOR SECRETARY.

Dr. Wm. R. Bathurst, of Little Rock.

FOR TREASURER.

Dr. R. L. Saxon, of Little Rock.

COUNCILORS.

First District—Thad Cothorn, Jonesboro.
Third District—T. J. Stewart, Wynne.
Fifth District—F. E. Baker, Stamps.
Seventh District—Dewell Gann, Sr., Benton.
Ninth District—Leonidas Kirby, Harrison.

DELEGATE TO THE A. M. A.

Wm. R. Bathurst, Little Rock.

President Caldwell: We will now proceed to ballot for President. I will appoint Dr. Niehuss and Dr. Thibault to act as tellers.

Thereupon the House of Delegates proceeded to ballot upon the three names selected by the Nominating Committee, Dr. E. E. Barlow, Dr. E. D. McKnight, and Dr. W. T. Wootton.

After two ballots had been taken without a choice being made, on motion of Dr. Thibault the candidate receiving the lowest number of votes was dropped, to wit, Dr. Barlow.

Upon the third ballot, Dr. Wootton received a majority of all the votes cast.

Dr. E. D. McKnight: I move that we make the election unanimous. We have a good man selected.

Carried.

Dr. Thibault: As there is only one nomination for each of the other offices, I move that the Secretary be empowered to cast the vote of the House for the other officers.

Carried.

Dr. Niehuss: I have a motion to amend the Constitution if some one will move its adoption. That is, an amendment to Article V, page 3, amending the Constitution by striking out the words following "ex officio" and substituting therefor the words, "president, secretary and ex-presidents of this society, provided, however, that the ex-presidents shall not have the power of voting." That will make this change, that the ex-presidents of the society will have the privilege of membership in the House of Delegates, with the exception of voting.

Dr. Niehuss: I move the adoption of this amendment.

Carried.

President Caldwell: That will lay over for one year and come up for discussion at the next annual convention. We will now have the report of the Council, Dr. Thad Cothorn, chairman.

REPORT OF COUNCIL.

Minutes of meeting, Wednesday, May 2, 1923: Council met at the Majestic Hotel at 12:30 p. m. Present: Dr. Thad Cothorn, chairman; Dr. J. L. Jones, Dr. E. D. McKnight, Dr. A. Isom, Dr. W. T. Wootton, Dr. G. L. Henderson, Dr. E. F. Ellis, Dr. Robert Caldwell, President; Dr. Wm. R. Bathurst, Secretary.

Dr. Cothorn reported the First District in good condition, with the exception of Poinsett County, due to road conditions, which will be remedied during the coming year. Visited all the counties, and found them doing well.

Dr. Jones reported that in the Second District four counties were so located that it was impossible to organize them. Cleburne was again organized last year.

Dr. McKnight reported that the Third District was doing fairly well, meetings fairly regularly attended and all counties organized.

Dr. Isom reported that the Fourth District was in fair condition, a few having regular meetings, and the entire district increased its membership by six. Quite a little interest shown in the whole district.

Dr. Wootton for the Seventh District reported that last year he tried to get in touch with the secretaries of the various counties, asking whether they would like to have the doctors from Hot Springs visit them, and received one response, from Malvern. They went there and had quite a good meeting. Tried to do the same thing this year, and only one response was received. Montgomery County was recently organized. He

found that unless politics are injected into the meetings, they do not prove of interest. He suggested that the plan be adopted of sending for case records of the Massachusetts General Hospital, or some such similar institution, for the purpose of analysis and study. In his county medical society they have what is called "The Academy," restricted to twenty-five members, meeting twice a month, when they have these case records read and they learn a great deal from them.

Dr. Henderson, for the Eighth District, reported that he visited every county except Pulaski, being in close touch with them, he knew they were doing well. Succeeded in getting Pope and Yell Counties reorganized and in good working order after lying dormant for some time. Faulkner, Conway and Johnson Counties were in good shape and doing good work. Found only three members in Perry County, and scattered, and suggested that they ought to be transferred to Conway County.

Dr. Ellis, for the Tenth District, submitted answers to a questionnaire sent to the secretaries of the various county societies. Visited Washington, Benton and Crawford Counties and the Tenth Councilor District Medical Society at Fort Smith. Found active interest shown in these societies and they were doing good work, and a reasonable degree of harmony in the district was manifested.

As Councilor of the Tenth District of the Arkansas Medical Society, I wish to submit the following report of my year's work as councilor:

In March I sent the following questionnaire to the secretaries of each of the county societies in my district, and received replies from all except the secretary of Madison County Society. These reports I am submitting in tabulated form.

1. What is the present membership of your society? Sebastian 50, Crawford 13, Washington 23, Franklin 22, Logan 12, Benton 40.

2. What increase over last year? Benton 5, Washington 1.

3. How often does your county society meet? Sebastian every second and fourth Tuesday, Crawford once each month, Washington quarterly, Franklin monthly, Logan once a year, Benton every month.

4. What is your average attendance? Sebastian 15, Crawford 10, Washington 12, Franklin 5 or 6, Benton 12.

5. How is your scientific program? Sebastian good, Crawford good, Washington good, Franklin not very good, Logan poor, Benton reasonably good.

6. Do the members who are appointed to read papers comply with request? Sebastian, generally they do; Crawford, yes; Washington, yes; Franklin, yes; Logan, not well; Benton, about 70 per cent comply.

7. Are papers fully discussed by members? Sebastian, yes; Crawford, yes; Washington, yes; Franklin, yes; Logan, yes; Benton, usually.

8. Is there harmony in the profession of your county? Sebastian, yes; Crawford, improving; Washington, yes; Franklin, yes; Logan, no; Benton, not much.

9. Are there personal differences among the members that might be helped by a visit from a member of the council? Sebastian, no; Craw-

ford, yes; Washington, no; Franklin, no; Logan, no; Benton, no.

10. Have you paid your dues to the State Society for this year? Sebastian, yes; Crawford, yes; Washington, yes; Franklin, yes; Logan, no; Benton, yes.

I visited Washington, Benton and Crawford Counties, and the Tenth Councilor District Medical Society at Fort Smith. I found active interest in these societies, all doing good work. There is a reasonable degree of harmony in the profession in my district. There are some personal differences, however, which seem hard to reconcile. Further efforts will be made in this line. The scientific programs and discussions show marked improvement over former years.

The sum of \$300.00 was allowed and ordered paid to the attorney for the society for the past two years.

The sum of \$73.50 was allowed for incidental expenses of the secretary.

An additional sum of \$10.00 per month was allowed for the stenographer of the secretary.

The sum of \$150.00 was allowed for the expenses of the secretary incident to his attendance at the meeting of the A. M. A. at San Francisco.

The secretary was authorized to pay the expenses of the councilors incurred in visiting in their districts.

The customary honorarium was allowed the editor of the Journal.

\$25.00 was appropriated for the use of the Committee on Scientific Exhibit.

Thursday, May 3, 1923.

The Council met at 12:30 p. m., with the same councilors present, together with the President and Secretary.

The report of the Gorgas Memorial Committee was submitted to the Council, reporting the collection of a fund of \$130.00. This fund was supplemented by the collection of \$25.00 from several councilors present on behalf of their respective county societies. It was the sense of the Council that this sum of \$155.00 be transmitted to the Gorgas Memorial Committee of the A. M. A. as the contribution of the Arkansas Medical Society.

The sum of \$400.00 was appropriated for the use of the Committee on Health and Public Instruction, said committee not having used its appropriation of last year.

The sum of \$50.00 was allowed the Committee on Infant Welfare.

The Auditing Committee of the Council reported that they had audited the books of the Secretary and Treasurer and found them to be correct, and in keeping with the representations of the Secretary and Treasurer.

On motion, the report was adopted.

President Caldwell: We will now have the report of the Reference Committee.

REPORT OF REFERENCE COMMITTEE AND COMMITTEE ON RESOLUTIONS.

A meeting of the Committee on Resolutions, also chosen as the Reference Committee, was held in the parlors of the Hotel Majestic, Thursday, May 3d, at 2:00 p. m., Chairman Breathwit presiding.

First subject considered was the report of the delegates to the A. M. A. meeting at St. Louis. Dr. Bathurst called attention to two important

features of the report, i. e., teaching chiropractic as a part of the vocational training of disabled soldiers, and the revision of narcotic act without knowledge of the physicians subjected to its operation.

Your committee recommends that the State Society condemn the action of the Veteran's Bureau in giving chiropractic instruction as a part of the vocational training of disabled soldiers, and suggest that a copy of this recommendation be sent to the President of the United States, Brigadier General Sawyer, the director of the Veterans' Bureau; to both of our Senators, and to each of Arkansas' seven Congressmen.

Your committee further recommends that some action be taken protesting against proposed modification of the rules governing the administration of the Harrison Narcotic Act, without the consent or connivance of the profession who are chiefly interested in its enforcement, and who are not permitted to submit their views bearing on the subject. We would further recommend that extract from the minutes be sent to the President of the United States, the Secretary of the Treasury, and the Commissioner of Internal Revenue.

Your committee further recommends that the Committee on Workmen's Compensation and Social Insurance be continued; but that it be designated as the Committee on Workmen's Compensation, and that its activities be confined to that phase only. The committee's work deserves hearty co-operation and approval.

The report of Dr. Shipp of the Committee on State Hospitals is approved and it is recommended that a committee be appointed to follow up the investigation of the present committee and report at our next session.

The work of the Committee on Scientific Exhibit is highly creditable in the estimation of your committee, and it is recommended that the thanks of this society be extended to its chairman for the excellent exhibit brought to the meeting; and it is recommended that an appropriation of \$25.00 be made to assist this committee in collecting material and to defray other necessary expenditures in the prosecution of its work.

Your committee endorses the plan and scope of the Committee on Infant Welfare and would recommend that a standing committee be named, to be known as the Committee on Infant Welfare. We recommend the adoption of the report submitted by the chairman of this committee for the past year.

Your committee would recommend to the House of Delegates that the State Society be empowered to pay a retainer fee for our General Attorney for the next biennium, as heretofore.

With reference to the suggestion by the President that the Committee on Scientific Program invite some full time instructor to come before us at our annual meetings and the other recommendations in the President's report, we suggest the thanks of the society should be extended for the thought and investigation he has given these matters; but we doubt the feasibility under present-day conditions and believe they should be left to the wisdom and good judgment of the Committee on Program.

Your Reference Committee begs leave to suggest the advisability of asking the endorsement of the society as a whole to the effort being put forth by the School of Medicine of the University of Arkansas in maintaining a high standard of medical education; and we would recommend that the Council as a whole or a committee from the Council be requested to visit the medical school

for the purpose of inspection, encouragement and assistance in maintaining the standards they have set out to enforce. We beg to recommend further that every member of our society throughout the State feel his incumbent duty to exert his influence in support of the high standards to be maintained by our State Board of Examiners; and we recommend and endorse the efforts they have put forth to maintain the standards they have established and we feel that both they and the School of Medicine are entitled to our endorsement, our sympathy and our hearty support.

We further suggest that it would be in keeping with the better interest of our society as a whole if the visitors of the committee from the Council make up and present their report not in the way of criticism, but to promote a better understanding and co-operation.

Your committee would further recommend that if it is considered entirely consistent and feasible that our State Medical Board be requested to submit to our annual session a report of its work at the two previous meetings of the board preceding our annual meeting.

As to honorary membership in our county and State societies, we endorse the recommendation of the Committee on Revision of Constitution and By-Laws, that a physician who has been a continuous member for a term of fifteen years, who is not less than sixty-five years of age, who is an honorary member of his county society, may have his name carried on the roster of the State society and receive its publications as an honorary member and be exempt from the payment of dues.

Your committee heartily endorses the resolution for immunizing school children by the use of toxin anti-toxin, and we recommend its adoption in every community wherein antagonism does not prevent. Respectfully submitted,

Wm. Breathwit, Chairman,
M. L. Norwood,
Sam J. Allbright.

Adopted.

Secretary Bathurst: The report made by the Reference Committee presents several changes that affect our constitution and by-laws. These will be published from time to time in the Journal, and you can be prepared to vote on them at the next meeting.

On motion the House of Delegates adjourned *sine die*.

GENERAL SESSION.

FIRST DAY.

The General Session was called to order at 2:20 o'clock, p. m., Wednesday, May 2, 1923, by Dr. Caldwell, President.

Invocation by Rev. Marion S. Monk, pastor of the Central Methodist Church.

Almighty God, Thou High and Holy One, Thou giver of every good gift and of every perfect gift, we thank Thee for our abiding faith in Thee, as the one true and living God. We thank Thee for the faith by which we live and move and have our being on this earth, that faith with which we assume life's responsibilities and undertake the performance of life's many and varied duties. We bow now for the moment and invoke Thy benediction and Thy blessings upon this gathering. We thank Thee for this great and noble profes-

sion, whose ministrations mean so much to the human race, these noble men who give of their talents and their time and their strength in ministering to the welfare of Thy children on earth. Be with them, we beseech Thee, in all their sessions. Guide and direct this presiding officer and every member in their discussions and in their studies. May great good come to each and every member of this organization, and through them may Thy children, the human beings of earth, reap rich benefit and reward. We humbly ask in His name. Amen!

President Caldwell: Address of Welcome by Dr. Drennen.

ADDRESS OF WELCOME.

Dr. Drennen:

Mr. President and Gentlemen of the Arkansas Medical Society, Ladies and Gentlemen:

I am sure that you are disappointed—and I, too—in not having the mayor with us this afternoon; but I found out early this morning that, on account of his physical condition, he would not be able to attend at this hour. I am sure if you knew him as I do you would appreciate why he is not here. I must tell you about the kind of welcome that you would have gotten if he had happened to be here today. Many years ago he came here, like some of the balance of us, and since that time he has become the master of the inn where your headquarters are. He has worked faithfully and courageously to build up his business. And in addition to that a number of years ago it happened that he was one of the commissioners of the commission form of government, and during that time—perhaps he didn't know that it would ever be told—he invariably took his little stipend that they gave him, something like fifty dollars a month, and turned it over to the Red Cross without saying anything about it. After that he became our mayor two years ago. I believe that the mayor's salary is something like \$150.00 a month, and he has never accepted one of those checks. He has invariably turned them over to our people. And that is the kind of spirit that you would have had had you had the Honorable Harry Jones to welcome you here today. That is the kind of spirit that has led to a bigger, better and a broader Hot Springs. And it is the kind of spirit that will lead us on to a greater, grander and a more glorious citizenship. And it is in that spirit that we welcome you here today. (Applause.)

President Caldwell: Dr. E. M. McKenzie will now welcome us on behalf of the profession.

ADDRESS OF WELCOME FOR THE PROFESSION.

Dr. McKenzie:

Mr. President, Members of the Arkansas Medical Society, Ladies and Gentlemen:

In the ancient period people would travel for hundreds and hundreds of miles to visit the seven wonders of the world. In this day and time people travel hundreds of miles to visit the seven wonders of America. It is my pleasure today, on behalf of the Garland County-Hot Springs Medical Society to welcome the medical profession of Arkansas to one of those wonders of America, the Hot Springs National Park. In wel-

coming you to Hot Springs, I always feel that I am welcoming you to your own home, because Hot Springs is not the home of the people who live in Hot Springs alone, but it is a place that belongs to you as well as it belongs to the people who live here. It is not our health resort. It is your health resort. And it is to your own place that we welcome you. And while you are here we want to assure you that you are welcome not only to the places in which the meetings are to be held, but you are welcome to every place in Hot Springs. The doctors will welcome you into their offices, to visit patients with them, to partake of whatever they may have in their offices that they are willing to part with. (Laughter.) This would have been easier to have gotten before the raid of the Ku Klux Klan some time last fall, when they captured about 110 stills. Since that time it has been just a little bit hard to get. However, if the visiting doctors here desire to imbibe any of the "mountain dew," I think we will have some means of providing that for them. (Applause.) You are also welcome, while you are in Hot Springs, to visit the Government clinic, the Government free bath house, which is the clinic for venereal diseases, the Levi Hospital, which is the clinic for internal medicine, surgery, the eye, ear, nose and throat. We want you to feel that these are your clinics just the same as they are our clinics. They are clinics under the control of the United States Government, but they are clinics that are conducted by the physicians of Hot Springs. To these clinics you are welcome at any time you desire to visit them. We want to make you feel so much at home while you are in Hot Springs that you will return home with the determination to again visit Hot Springs, not only when there is a medical convention here but at any time that you feel you have the time. And we would be glad while you are here this time if we could only keep you here long enough to convince you of the medicinal properties of our waters. We feel if we could keep you here for a month or two months, or three months, you would go away with all doubt—if you ever had a doubt in your mind in regard to the medicinal properties of our waters—entirely eradicated, and that you would be a booster for Hot Springs as your own health resort just the same as we are boosters for Hot Springs. We hope that when you return to Hot Springs at any time that you so desire, that you will feel at that time that you are just as much at home as we try to make you feel that you are at home at this time and day.

And on behalf of the Garland County-Hot Springs Medical Society, I wish to extend to you the hearty hand of welcome, having you to feel that you are in your own home, that you will ask for things here just the same as you would ask for things at your own home. And I assure you that for whatever is within the power of the physicians of Hot Springs and the people of Hot Springs, all these things and more, too, will be granted you. I thank you. (Applause.)

President Caldwell: We will now hear the response by Dr. Morgan Smith to the addresses of welcome.

Dr. Morgan Smith:

Mr. President:

The address just delivered by you, Mr. Mayor, representing the city of Hot Springs, and the address by you, Dr. McKenzie, representing that stalwart organization, the Garland County Med-

ical Society, were so brimming full of expressions of cordial greetings and proffers of hospitalities, that I am, for the nonce, utterly and oratorically unhorsed. But I should have known, as every member of this society knows who has been here before on such occasions, that you would throw wide open the doors of your city, your city hall with its keys tied up with civic forget-me-nots, your inviting jail beautiful in the perspective, your delightful homes and your generous hearts. But I must confess, as an experienced prophet, that I never even dreamed that you would throw your mouths so wide open that the floods of your hospitality would drown my efforts to frame an appropriate impromptu response. (Applause.) If the flood-tide is now waning, may I not be permitted, on behalf of this society, assembled here today in annual session, to assure you how genuinely we appreciate your greetings and how substantially we are going to enjoy the plans which you have provided for our entertainment. (Applause.) At the risk of committing an impropriety, I am going to remind you both that for some reason, wise or otherwise, you committed an inexcusable oversight in not giving us your banks with their deposits and your lockers with their deposits. In the first instance, we would be rich; how happy we would be! In the second instance we would feel rich; how happy we would be! As there is a mathematical axiom which postulates that things equal to each other are equal to the same thing, we shall keep open minds and be prepared to accept either offer.

Hot Springs generates hospitality as naturally as it radiates it. You are natural born entertainers, and your reputation in this respect is equalled only by the fame of your health-giving waters.

Where on earth is there a more delightful place to visit than Hot Springs in the springtime?

Where else can its radio-active waters, surcharged and scintillating with anti-toxins, immune bodies and all the biological protectives known to science, be matched?

What other city on this continent can boast of such palatial hostelryes?

The architectural beauty and splendor of your bath houses is a marvel as well as a delight to the visitor who loves art for art's sake.

Your velvet roads, winding their lazy way over vine-clad hills and along the valley's green, are a severe challenge to the motorist who would respect and keep the law.

Your Grand Central Avenue is a veritable miniature metropolis of ever entrancing heterogeneity.

Your mountains, vales and forests are the natural abode of the gods. On the summit of that majestic mountain which overlooks this city, I know must be located the golden temple of Hygeia and her twin sons, Thermos, the elder, and Radios, the last born. And parenthetically may I add that cursed be the bones of him who would kidnap the youngling and break up this happy family. I make no apologies to the Secretary of the Interior.

But above and beyond all these is the character of your citizenship. For there is no fame comparable to character; no reward equal to virtue.

The old Hot Springs with its suave and polished army of hotel, bath house and medical solicitors, and its gambling dens, is but a memory. With miraculous moral courage you razed the temples of the charlatan, and the mountebank, and demolished dens of iniquity, and out of it has come a civic righteousness which has made you the cynosure of all eyes.

I surmise that the Garland County Medical Society has been an important factor in making Hot Springs a desirable place to visit for pleasure as well as for health. Your members are leaders in the profession and I suspect have the largest clientele of any group of physicians in the United States. This places additional responsibilities upon you, for the severest critics are the visiting sick. You are nobly upholding the high standards of the profession, and must continue to have the support and sympathy of your good citizens.

And now, Mr. Acting Mayor, and Dr. McKenzie, holding power -of-attorney for the members present here today, being myself of sound mind and in possession of most of my senses, and desiring to act for them in a befitting manner, in consideration of your warm greetings, your generous hospitality, and for other and divers reasons, do hereby bind and obligate, and do by these presents irrevocably bind and obligate them to seize, hold, appropriate and enjoy all of the things, tangible or intangible, assessable or nonassessable, lawfully transportable or otherwise as the case may be, you have tendered; and furthermore are they bound and obligated to ever carry fresh in their minds the pleasant memories of their visit to the greatest health resort in the world, their association with the best citizens God ever let grow and their fraternization with the most splendid type of physicians in the profession. (Applause.)

Dr. Drennen: I wish to assure you that the mayor turned the keys over to me, the jail doors are all locked, and I shall hold the keys and there will be no danger there, no matter what you do.

President Caldwell: We have with us this afternoon some distinguished guests from out of the State. Dr. Drennen has kindly consented to introduce these guests, and we will have the introductions now.

Dr. Drennen: Briefly, my pleasure first is to introduce to you and your friendly consideration Dr. Wm. Engelbach of St. Louis. You will not only get a good look at him now, but you will have the privilege and delight of hearing him a little bit later on when he will address you. The next visitor we have here is too well known to need an introduction to a Hot Springs audience. I have the delightful pleasure of introducing Dr. Jabez N. Jackson of Kansas City. Get a good look at him. He, too, will talk to you this very afternoon. My next pleasure here is infinite, because it is connected directly with my heart on account of the fact that he is a representative here in an official capacity of the Mississippi Valley Medical Association. I wish you to know Dr. Tenney of St. Louis, Secretary of the Mississippi Valley Medical Association, and also Dr. Stanton, who is our Treasurer, two people to have together when we need

money, and who know how to spend it. We hope to have these gentlemen with us again in October, and they are going to bring us I don't know how many thousand, but they will have to tell about that later on. We are glad to have them with us.

Dr. Southard (Second Vice-President): We will now hear the annual address of the President, Dr. Caldwell.

(The President's Annual Address will be found on the first page of reading matter in this issue.)

On motion the President's Address was referred to the Reference Committee.

Dr. Jabez N. Jackson here read a paper on "Cancer of the Female Breast, Factors Influencing Best Surgical Results."

Dr. Mann: I move that we thank Dr. Jackson by a rising vote for his most excellent paper.

Carried.

Dr. Wm. Engelbach here read a paper on "Results of Treatment of Ductless Gland Disorders," with lantern slide demonstration.

Dr. Mann: I move to thank Dr. Engelbach for his excellent paper by a rising vote.

Carried.

On motion the General Session adjourned until the afternoon of the last day, immediately after the adjournment of the House of Delegates.

GENERAL SESSION.

LAST DAY.

The General Session was called to order at 2:00 o'clock p. m., Friday, May 4, 1923, by Dr. Caldwell, President.

Dr. Morgan Smith: Mr. President and Gentlemen: Probably you are not prepared for what is about to follow. The Arkansas Medical Society has an honorable history. It numbers within its ranks some of the greatest heroes of Southern medicine. We have honored in our memorial exercises today the lives and character of those whose untimely deaths we mourn. We have often wondered if we do our duty to the living; to those men who have spent their young manhood, the years of their maturity and their declining years in the service of humanity. These men are heroes no less than those that are revered in our history. It occurred to a number of us that just before the meeting of the General Session we should present to you one whose life has been spent in the noblest of the pro-

fessions; one who has sacrificed beyond measure, not only for those who have suffered from pain and disease, but for the uplift of humanity. If Jacobi was one of the great heroes of American medicine, my good friend here, Dr. Leonidas Kirby, is the transcendent hero of Arkansas medicine.

“May he live

Longer than I have time to tell his years!
Ever beloved, and loving, may his rule be!
And, when old Time shall lead him to his end,
Goodness and he fill up one monument.”

(Loud and continued applause.)

Dr. L. Kirby: Mr. President and Gentlemen of the Arkansas Medical Society: I don't want to appear too emotional, but I can't avoid it. I know I am in the house of my friends. I feel that I belong to the profession that is entitled to all that our speaker said for it. I am glad that I belong to it. I am glad that I cast my lot with you folks fifty-two years ago. On the first day of next October, if I continue my practice, I shall have been engaged in the practice fifty-two years in the State. I may have done some good. I don't elaim any credit. I say that every man should do the best he can and ask no favors. If they come to him, it is all right. I never asked a thing of a man in this State, because of what I might have done, and I don't expect to as long as I live. I thank you for your recognition.

President Caldwell: We will have the report of the Nominating Committee and the election of the President.

The Secretary: The report of the election is as follows:

W. T. Wootton, President, Hot Springs National Park.

J. O. Rush, First Vice-President, Forrest City.

J. C. Graves, Second Vice-President, Lockesburg.

S. J. Allbright, Third Vice-President, Kensett.

R. L. Saxon, Treasurer, Little Rock.

Wm. R. Bathurst, Secretary, Little Rock.

COUNCILORS.

First District—Thad Cothorn, Jonesboro.

Third District—T. J. Stewart, Wynne.

Fifth District—F. E. Baker, Stamps.

Seventh District—Dewell Gann, Sr., Benton.

Ninth District—Leonidas Kirby, Harrison.

Delegate to the A. M. A.—Wm. R. Bathurst, Little Rock.

President Caldwell: I take pleasure in introducing to you your new President, in whose favor I now abdicate.

(Dr. Wootton takes the chair.)

Dr. Wootton: I want to say just a word of appreciation of the honor that you have given Hot Springs. I take it there is nothing personal as far as you are concerned, but that it is a matter of locality. It has been seventeen years since there has been a President from Hot Springs. In that time there have been two First Vice-Presidents. I feel that you men wanted to give this district the Presidency. I have lived among these boys and practiced among them in Hot Springs twenty years, and many of those years were storm periods, trying to clean up one of the worst things that ever occurred in the profession of Arkansas. I say many of those twenty years have been stormy years, and if I have been able to retain the friendship and respect of the boys here at home, so that they would pick me as their representative of Hot Springs, that is something that touches me personally. The boys at home usually know; you fellows away are more or less indifferent. I have no delusions as to our profession. There is merely one subject that is very deeply graven on my heart, when it comes to cults and the various pathies that are steadily growing among us, and that is what Dr. Thibault says about the school children. I can not get away from the idea that it is the profession's duty to educate the school child, so that when he grows into manhood he may be able to judge what can be done for him and what can not be done for him, so that they may read the signs along the road and know exactly how much that has to offer them. So that, if they are threatened with blindness, they will know that the optic nerve doesn't come out of the spine and that the chiropractic is but a fake. I say that you can not take the men of today and make them believe anything but what it is jealousy, when you try to tell them we are doing the best for them and that the bone man is not competent. He doesn't believe you. I believe in education and education along in the only spot that is vulnerable, and that is the school; that is the place to attack it; and if there is any one thing that I am going to insist on throughout this com-

ing year, it is to start in the schools. (Applause.)

President Wootton: Reports of other committees. That includes the Board of Medical Examiners. Are those Congressional Districts ready to report

The following names were reported to the General Session:

First District—Dr. T. S. Hare of Crawfordsville, Dr. Thad Cothorn of Jonesboro, Dr. N. J. Latimer of Corning.

Fourth District—Dr. W. H. Toland of Nashville, Dr. C. A. Archer of DeQueen, Dr. J. D. Southard of Fort Smith.

Fifth District—Dr. E. H. Hunt of Clarks-ville, Dr. Thos. Douglass of Ozark, Dr. J. B. Dooley of Little Rock.

On motion of Dr. Thibault, the report was adopted.

Dr. Douglass: I have been requested to invite the Arkansas Medical Society to meet next year in the city of Fayetteville. This invitation is extended by the Rotary Club of that city, by the Business Men's Club, by the Civic League, by the Women's Club, by the President of the University and the Washington County Medical Society; so that you see it is fairly unanimous. The Methodist assembly building will be completed by that time, and that will be a splendid meeting place, and I am sure Fayetteville will be well able to take care of the society and entertain them royally.

Dr. Southard: If there are no other nominations, I move that the nominations be closed, and the invitation of Fayetteville be accepted.

Carried.

Dr. Thibault: Before we adjourn it is the duty of this society to express their appreciation to the citizens of Hot Springs, to the members of the Garland County-Hot Springs Medical Society, and to these people that have so kindly put this building at our disposal, and for the Secretary to name any other persons; also to the Boy Scouts and the ladies particularly, and any other persons whose courtesies we have accepted.

Dr. Evans: I move that we include in that the choir that sang at the memorial exercises. I thought that was the best thing we had.

Carried.

On motion the Arkansas Medical Society adjourned *sine die*.

(Note.—The report of Public Health Session, May 3, will appear in August issue.)

MEMORIAL SESSION.

Thursday, May 3, 1923.

9:30 A. M.

The Memorial Session was called to order at the First Presbyterian Church by Dr. O. E. Jones, Chairman of the Committee on Necrology.

Organ Solo—"Chanson" (St. Saens)—Miss Frances Hardin.

Invocation by Rev. C. E. Hickok:

Almighty God, our Heavenly Father, Thou art the Giver of all that is good. We acknowledge our dependence upon Thee in all things. We thank Thee that Thou hast given us not only these bodies, but Thou hast created us in Thine own likeness, that we can know Thee, that we can enjoy Thee, that we can serve Thee, doing Thy work in the world. We thank Thee that Thou hast revealed Thyself unto us through all of the laws Thou hast written in the Book of Nature. We thank Thee that, reading these laws, our minds are turned unto Thee, and that we are conscious that Thou art everlasting, that Thou art always present. So, in this memorial service, we come unto Thee praising Thy name. Thou hast given unto us that which is above mere earthly life, that he who serves upon earth shall forever enjoy being. Do Thou come then this morning, and as we call to mind all the works of those who have gone before, may we emulate all that is good in them; may we seek to learn the lesson of service, giving of ourselves freely for the uplifting of humanity and the honor and glory of Thy great and Holy name. And with it all, grant unto this body of men, and grant unto us all, that we may humbly walk in the footsteps of that Great Physician, our Lord and Saviour, Jesus Christ. Strengthen us in mind and body for the tasks of life, forbid that we should ever forsake our high ideals, and in all things may we seek Thy ways. We ask Thee for the pardoning of sin, in Jesus' name, Amen.

The choir here rendered—

Antiphon: "O Israel, Fear Not."

Anthem: "Art Thou Weary?"—Miss Rena Stearns, Mr. W. C. Brown, and choir.

LIST OF DECEASED MEMBERS.

Moses Cline Hughey, Marianna, May 28, 1922.

J. C. Cleveland, Bald Knob, June 3, 1922.

Ewell Pollett, Jonesboro, June 16, 1922.

Chas. Sanford, Board Camp, July 27, 1922.

Charles M. Roberts, Hot Springs, August 29, 1922.

Arthur Clifford Jordan, Pine Bluff, August 29, 1922.

John W. Melton, Benton, November 30, 1922.

Henry Hodgen Kirby, Little Rock, December 9, 1922.

Zaphney Orto, Pine Bluff, January 22, 1923.

Boulanger Gwaltney, Traskwood, February 19, 1923.

Alexander Everett Harris, Little Rock, March 7, 1923.

Rufus S. Rice, Rogers, March 21, 1923.

Wm. R. Greeson, Conway, March 28, 1923.

President Caldwell: We will now take up the Memorial Session. As you see by the list before you, quite a few of our dearly beloved doctors and some of our best doctors have been called by that Grim Harvester that some day will take us all. I am reminded of the fact in history that when Xerxes looked down upon his army before he made that wonderful campaign into Greece centuries ago, in which he was defeated, tears rolled down his cheeks. Some of his men asked him why he was crying, and he said, "Just to think that of this wonderful army of a million men, not a man will be alive in a hundred years from today." The question of victory or defeat wasn't on his mind, but the question of what was going to happen to those men. It has often been said that we forget our dear loved ones very quickly after they are gone, that the dead are soon forgotten. But we think it is for the best, because it would be impossible for us to go ahead with our work if we continued to mourn for the dead. But, lest we do forget them too quickly, we have this Memorial Session in honor and memory of those who have passed away. I now turn this meeting over to Dr. Jones.

Dr. J. M. Jelks: Dr. Cleveland was born in Independence County, November 19, 1852. He was educated in the public schools and also through private instruction at home. He taught in the rural districts and in town schools for several years, afterward taking up the study of medicine. For a time he was in the drug business. He afterward went to the Kentucky School of Medicine, and then to the Louisville Medical College, and later he graduated from the Missouri Medical College of St. Louis in 1888.

Previous to this time he practiced at Russell, Arkansas. In 1888 he moved to Bald Knob, where he established an office, where he practiced until his death. He also took a post-graduate course in the Chicago Polyclinic and in 1919 he opened a private sanatorium which he successfully operated. For more than thirty-two years he was local surgeon for the Missouri Pacific Railway. He belonged to the White County Medical Society, the Arkansas Medical Society, and Southern Medical Association, the American Medical Association and the Southern Railway Medical Association.

Dr. Cleveland was a Mason, having taken degrees of the Blue Lodge at Newport, the Chapter and Council at Bald Knob, and he has served as High Priest of the Chapter. He also belonged to Woodmen of the World, the Knights of Pythias, was examining physician of the former, and passed through the chairs of the latter. He was also Vice-President of the Arkansas Medical Society.

Dr. Thad Cothorn: Dr. Pollett was one of our younger men, an active member of our county society. But, unfortunately, he was snatched off very quickly from his work. He was driving down the road racing a train, but he didn't get to the crossing. His car was turned over and his life crushed out instantly. I think it is better so. When my time comes I would like to go quickly.

Dr. J. F. Rowland: I had the privilege and pleasure of knowing Dr. Chas. M. Roberts for about fifteen years. Dr. Roberts was born in 1866 in Franklin, Ky. While an infant his parents moved to Nashville, Tenn. In 1873, at the age of seven, he lost his father, his mother, two brothers, a sister, and a cousin, all of whom died in 48 hours of cholera. He was taken to live with his brother, who was a minister, at which time there was established in his young mind the Christian faith and a moral stamina which made the world better for his having lived in it. Early in 1890 he married Miss Rhodes, in Whiteville, Tenn. In 1892 the Medical Department of Vanderbilt University of Nashville conferred upon him the degree of M. D., immediately after which he moved to Whiteville, Tenn., where he practiced his profession for about ten years, then moved to Hot Springs, and lived here about twenty-three or twenty-four years. I have been many times on drives to solicit contributions and donations for various

worthy causes, and I have never known Dr. Roberts to turn down one of these solicitations. His devoutness as a Christian, his sterling worth as a man, and his willingness to help those in distress made his demise a distinct loss to this community and to the medical profession.

Dr. J. M. Lemons: I want to say just a few words in regard to Dr. Jordan. I will speak of Dr. Jordan as a Christian gentleman and physician. There will be one following me that will give you a little more of the details in regard to Dr. Jordan as a medical man. A number of you men have known Dr. Jordan even longer than I have. I became acquainted with Dr. Jordan personally in 1911, and from that acquaintance with him I learned to love him as an upright, straightforward Christian gentleman. Dr. Jordan was a man that I think lived what he preached as a Christian gentleman. Dr. Jordan and I were associated very closely together at Pine Bluff at the First Methodist Church. He and I served as stewards and trustees of that church. A few years ago we conceived the idea of erecting a new building, and Dr. Jordan was named chairman of the building committee. After everything was ready for the breaking of the ground for that new building Dr. Jordan was never too busy in his practice to go and see how they were getting along with the erection of that building, and it was said that sometimes he even visited and watched the workmen as much as four or five times a day and put in sometimes as much as an hour or two hours watching the progress of that magnificent structure. When the building was completed, Dr. Jordan indeed seemed to be very happy, as he had devoted so much of his time—not only his time but he had given freely of his means. So I feel that we lost a great deal when Dr. Jordan passed away. To know Dr. Jordan was to love him. There were some people that probably did not know Dr. Jordan so well, and, therefore, they did not love him so well, but, when you knew the man and got close to him, he would get close to you. And I consider, in the death of Dr. Jordan, we have lost one of our noblest, Christian physicians in the State of Arkansas.

Dr. Wm. Breathwit: Speaking of Dr. Jordan, I have a great deal of pleasure in saying to you, I knew him well. He was a pioneer

in medicine in Arkansas. He was one of the most wholesouled men I ever knew. When you come to consider the larger, broader, bigger things in life, he measured up to the very highest standards of Christian citizenship and the highest ideals of men. Dr. Jordan was a past president of the Arkansas Medical Society, and never grew tired in any effort put forth by the society for medical betterment. Dr. Jordan was a man of such outstanding character and characteristics that he threw away from him the smaller men, the smaller people, the smaller principles. Personally, Dr. Jordan was not my friend. And yet, personally, I think we both had an abiding faith and an abiding confidence in each other. We belonged to the same church. We were identified with a number of other organizations. And yet it seemed that there was always some little something that pulled us apart, in so far as near relationship was concerned between man and man and doctor and doctor. And through it all I loved him and respected him, because I knew that underneath it all he stood for the very highest principles and the highest ideals, and underneath it all I knew that he was daily performing the great tasks that fell to his hands and that he measured up to the very highest standards. When the summons came for the Great Adventure, he had been warned. He walked out unafraid. I think it is true of every outstanding character that he creates dissensions and antagonism in his community; but underneath it all, through it all, men, women and children in every walk of life in his community respected him by virtue of his justice, by virtue of his bigness. Notwithstanding his austerity and his autocracy, so to speak, men and women respected him and loved him, without being outspoken in it. I don't know that I ever came in contact with just such another character as was exemplified in the life of Dr. Jordan. I am impelled to believe that underneath his austerity, the problems and perplexities of life bore so heavily upon him that he did not manifest the tenderness and friendliness and close approach that so many men are equal to. I am not sufficiently acquainted with his life, but it has been told me that, by brooding over the loss of his two children in infancy, a great cloud rested upon his heart and soul to the end; that he seemed to have cut loose from the world, in a very large measure. I

know that he and his good wife never let a Sunday morning pass without going to the cemetery and placing flowers on the graves of their lost children, and I know that this loss, while not embittering him, so impressed his life that he did not manifest toward the outside world, but only to a few of his neighbors, the real sweetness back of him. As a physician and surgeon, he had few peers in the State of Arkansas. He established and conducted a hospital on a very high plane in Pine Bluff for a number of years. He didn't make a success of it financially, but, from the standpoint of service it was an outstanding success. He was a very capable surgeon, a wise counsellor, and a very sympathetic, loving, tender physician, as manifested by the great many people who loved him, notwithstanding his austerity. Peace to his ashes.

Dr. J. L. Jones: This is a very serious hour with me. When Dr. Jordan was a young man, in 1884-5-6, he and I went to Vanderbilt University, and during the two terms we were there we roomed and boarded together. He loved his profession and devoted himself wholly to it. To me his death is a personal loss.

Dr. J. M. Phillips: I wish to say a few words with reference to Dr. Melton. I had the privilege of knowing him about twenty-five years; in fact, before he began the practice of medicine. I must say that Dr. Melton was an energetic, enterprising, Christian gentleman, always loyal to his patients, which means that his patients loved him. He was living in my town at the time of his tragic death. On November 30th, Thanksgiving day, I had my family in the car taking them for a few hours of pleasure. I passed over the Missouri Pacific crossing, and approached the Rock Island crossing. Within a quarter of a mile from there I met Dr. Melton coming in from seeing a patient, as happy and as bright as any man that ever lived. In less than four minutes' time, a Missouri Pacific train bore down upon him and mangled his body almost beyond recognition.

Dr. Melton graduated from the Arkansas University Medical School in 1904. He was always ready to go to the assistance of suffering humanity. He was always loyal to his church, devoted to his family. He was about 45 years of age, in the prime of life, progressive, and loyal to organized medicine. In fact, I think he was the most loyal man in

our county at the time of his death. On December 1st a great concourse of friends gathered at his home and we followed his remains over to near where he was born and reared, and there deposited his body to remain until the resurrection morn. I don't think there was a man in our county that stood higher with the people that knew him. He was a Mason and loyal to his fraternity. Raised in poverty, and adverse circumstances, he was energetic and persevered and was prospering and doing nicely. He was married, and had a family of four or five children. I don't think there is a doctor in our county but had the greatest admiration for him. He was always loyal, honest, conservative and upright, and a true Christian gentleman.

Dr. J. P. Runyan: I presume that many of you know that while out hunting in the fields near Lonoke on the 9th day of last December, Dr. H. H. Kirby fell dead. No one knew he was sick. He didn't even know it himself, I am sure, and no one suspected that he was not in perfect health.

The sudden and untimely death of Dr. Henry Hodgen Kirby brought sorrow into the homes of his many friends all over Arkansas.

Yet well under the forty mark in years, Dr. Kirby had made for himself an enviable record as a surgeon. There are few men in America who were better prepared for their work and who were more competent than was he in the execution of his work. As an anatomist he stood in highest rank among his fellows. As a diagnostician he had few superiors. As a surgeon he possessed a common sense, rare judgment and superior skill that placed him high in the field of surgery. Particularly was he skilled in the field of plastic surgery. His work in the development of a technique in the operations for inguinal hernia and repair of the perineum stands as a monument to his knowledge of anatomy and to his ability as a plastic surgeon.

No one ever loved his work more than did he. He had a wonderful capacity for work, and was fully devoted to his task.

Dr. Kirby came from an ancestry of doctors. His paternal great grandfather, Dr. Samuel Bender, graduated in medicine from the Transylvania Medical College, Kentucky, in 1822, received an addendum degree, in 1854, from what is now Washington University Medical College. His grandfather, Dr.

B. F. Kirby, also graduated in 1854 from what is now Washington University Medical College. His father, Dr. Leonidas Kirby, and two brothers, Drs. F. B. Kirby and A. C. Kirby, as well as Dr. H. H. Kirby, were all graduates of Washington University.

Dr. H. H. Kirby was born October 28, 1883, in Harrison, Ark. Died December 9, 1922, at Lonoke, Ark. Was buried in Roselawn Cemetery, Little Rock.

On November 11, 1911, Dr. Kirby was married to Miss Gladys Manning, daughter of Judge and Mrs. M. J. Manning. To this union were born four children, two sons and two daughters, all of whom survive him.

He was a deacon in the First Christian Church, Little Rock, and a tither. He was a Master Mason—a member of Arkansas Consistory No. 1, and a member of Bendemeer Grotto.

Dr. Kirby was a member of Pulaski County Medical Society, the Arkansas Medical Society, the Southern Medical Association, the American Medical Association, and the Rock Island Railway Surgical Association.

In the untimely death of Dr. Henry Hodgen Kirby the State of Arkansas has lost one of her most successful and beloved surgeons and one of her most esteemed and useful citizens. We bow before the Divine will and law, but with a keen consciousness that a mighty man among us has been taken away.

President Caldwell: This was printed in the Pine Bluff paper, and handed me this morning with the request that I read it, with reference to Dr. Orto:

DR. ZAPHNEY ORTO.

Dr. Z. Orto, pioneer physician and President of the Simmons National Bank, died at his late residence, 721 Laurel Street, Pine Bluff, on Monday, January 22, 1923, in the 81st year of his age. Dr. Orto was the dean of Jefferson County physicians. Coming to Pine Bluff in the early eighties he practiced medicine there until 1903, when he restricted his practice to enable him to give most of his time to his duties as President of the Simmons National Bank, finally withdrawing from the practice altogether.

Dr. Orto's life was marked by one dominating thing throughout his many varied years of activity—service. To his fellow man, to his country, his city and his State, he devoted the best that was in him, for more than fifty years, working night and day in the interest of some one else.

Zaphney Orto was born in Somerville, Tenn., August 10, 1842. His early life was spent on a farm, until the death of his parents, when he was taken by an aunt to Indiana, with whom he resided until, having graduated in medicine from a medical college in Cincinnati, he came to Arkansas in 1870, locating at Clover Bend in Law-

rence County and entering upon the practice of his profession, later removing to Walnut Ridge, where he continued the practice until the early eighties, when he removed to Pine Bluff. On April 8, 1873, he was married to Miss Margaret Coffin, the only sister of James P. Coffin, now of Batesville, Ark., and of Charles Coffin, formerly of Walnut Ridge and Batesville, and of Hector Coffin of Knoxville, Tenn., both of whom are now deceased. Of this marriage were born eight children, three of whom are now deceased, and five are living, to wit: Mrs. W. N. Trulock, Sr., Mrs. Hugh Humphreys, and Allan Z. Orto, all of Pine Bluff; Charles H. Orto of Little Rock, and Carson Orto of Los Angeles, California. Mrs. Orto died on September 2, 1900.

Dr. Orto was always considered a leader in his profession and was especially skillful in surgery and kept abreast of all advances in his profession by repeated attendances on post-graduate courses. Among his friends of national reputation were Dr. John Wyeth of New York and Dr. John B. Murphy of Chicago. At different times in his long practice he had as his partners, Dr. J. P. Runyan, now of Little Rock, and the late Dr. A. C. Jordan of Pine Bluff. Dr. Orto was held in the highest esteem by the members of the medical profession, and had served as President of the Arkansas Medical Society and of the Jefferson County Medical Society.

During the Spanish-American war Dr. Orto served as Major Surgeon of the Second Arkansas Infantry, of which Colonel V. Y. Cook was the Colonel, De Rosey C. Cabell was Lieut.-Colonel and Moorhead Wright was the Adjutant. He offered his services as soon as war was declared and served until it became apparent that American troops would no longer be needed, when he resigned, returned to Pine Bluff and resumed his practice, giving special attention to surgery. His business qualifications and judgment had long been recognized, and at the organization of the Simmons National Bank he was made its Vice-President, a few months later succeeding to the Presidency October 4, 1903, and continued to discharge the duties of that position until the close of his life.

Dr. Runyan: I want to say just a few words with reference to Dr. Orto. I was associated with him four years. He and I established the Pine Bluff Infirmary, the first hospital ever conducted at Pine Bluff. I had a very pleasant association with Dr. Orto. We were together four years, and there never was a misunderstanding between us. I never did anything that seemed to displease him, and all the time we were together he never did one single thing I thought was selfish or looked like he was trying to do anything to hurt me in any way, shape, form or fashion. When I got ready to leave Pine Bluff, inasmuch as I felt I had inveigled him into this partnership with me, because I had no money at that time, and only through Dr. Orto, who was generous enough to associate himself with me and to furnish the money by which we could establish this hospital, the thought occurred to me: "Now, I have gotten him into this

business. We are running this hospital, and I feel like I want to move to Little Rock, and yet I don't want to dump this institution on him." So, I went to him and asked him what he thought about the idea of my moving. I said, "Now, the only thing that is in my way is the fact that we have this institution and I don't feel like saying I am going to leave you with this institution." He said, "Now, let me tell you something, young man. I only went into this institution to help you." And that was characteristic of Dr. Orto. He liked to help the young man. He said, "It doesn't make a bit of difference to me, and if I were ten years younger, not only would I tell you to go to Little Rock, because I believe that is the best place for you, but I would go with you and we would establish a business as surgeons in Little Rock." "But," he added, "it makes no difference. You go ahead, and we will sell this institution, and we can get as much out of it as we put into it, and I believe the best thing for you to do is to go to Little Rock, and don't let that stand in your way." Dr. Orto was one of the doctors in the State of Arkansas who combined with his professional activities good business judgment. He had made money as he went along, and he had taken care of it. He was economical, and when he decided to quit practicing medicine he had accumulated a competence, and became President of one of the National banks of Pine Bluff, and died as its president. He graduated in Cincinnati at one of the schools there, and was a country doctor for quite awhile, and came to Pine Bluff well equipped to practice medicine, because he had had the rough and tumble of country practice that taught him a lot that many of the doctors who start off in the cities fail to get. Dr. Orto was pre-eminently a good doctor, a good business man and a friend of the young doctor.

Dr. J. W. Scales: Dr. Jordan and Dr. Orto both died the same year, from the same town in which I live, and I think it is nothing but meet that I, being the second man in seniority in years in the same town, pay my respects to them. I want to illustrate just one little incident which occurred, in a conversation between Dr. Orto and myself when I first came to Pine Bluff. I was hunting for an office, and I met a gentleman on the corner of the street, and I said, "Do you know where there is an office here to rent?" He

said, "Yes, there's one right there adjoining me. Are you a doctor?" I said "Yes." "Well," he said, "I shall be glad to have a good looking gentleman like you next to me." He added, "I was just standing here expecting somebody to come along who owed me a bill. By the time you have been here as long as I have, you can do that, too." I relate this simply to show you the characteristic disposition of the man. He was quick of decision, and he presented his case quickly to his colleague and left it for the colleague to decide what was best to do. I want to illustrate a similar phase of Dr. Jordan's disposition. Dr. Jordan had a vein of humor running through his temperament, together with a combination of pessimism that this very illustration will bring out forcibly. A few weeks before he died I called him in to sign up an accident policy, and he said, "Scales, I am getting to be pretty good. By the way, I don't enjoy smoking any more, and I never did drink anything." He said, "I am getting so fat, nothing ever arises to disturb my equilibrium." He added, "When you get good, you will be old in the same way." This strain of humor ran through Dr. Jordan's life. I knew him well; since he has been in Pine Bluff we have had many cases in consultation. He and Dr. Orto were two men that we can very well emulate in their many characteristics and traits of their characters.

Dr. J. M. Phillips: I wish to speak a few words in behalf of Dr. Gwaltney, who came to Saline County seven or eight years ago, and located at Haskell, north of Traskwood. He was a very active and energetic young man; he prosecuted his profession as best he could. When President Wilson declared war with Germany, he enlisted as a soldier, went to war and served his country. After returning home, he contracted a disease from shell-shock or something, I forgot now what he told me about it, which impaired his health so that he was unable to prosecute his profession again for a time. I saw him a while before he died. He was after me and other physicians in the county to help in getting into another line of work, that medical work was too heavy for him and he wanted to get into a Government position of some sort where he could make a living for himself and family. Not being a man of wealth, he necessarily had to work whether he liked it or not. He went from bad to worse. He didn't improve. He

didn't succeed in getting this Government position. On the 19th of February, I think it was, he passed to the Great Beyond. Dr. Gwaltney was a man that always treated his fellow practitioners, so far as I know, perfectly square. Whether he was a member of the church or not, I don't know. He lived something like ten miles from me, and I came in contact with him in consultation quite often. I always found him to be an honest, upright gentleman. His remains were sent to the northern part of the State and deposited in the Ozark Mountains, to await the resurrection morn.

Dr. F. Vinsonhale: Dr. Alexander Everett Harris was born in Collins, Drew County, and educated at the high school in Monticello, and graduated from Hendrix College, and afterward received a medical degree from Jefferson Medical College, Philadelphia. He then returned to his native county in the city of Monticello and there practiced for a few years and removed to the city of Little Rock seventeen years ago. Dr. Harris, shortly after coming to Little Rock, took a very high position in the practice of medicine, specializing in diseases of the heart and lungs. He was considered a very competent internist. Dr. Harris was an extremely modest man, unostentatious, very conscientious, a man of high ideals. When the war began, Dr. Harris volunteered his services, and after a short service was discharged for disability. For several years the doctor made a struggle against ill health and disease, going from sanitarium to sanitarium, in an effort to recover his health. Those of us who knew him understood and appreciated the great and heroic effort that he made to get well. In the last year or two of his life he had nearly recovered his health and was again engaged in practice. Dr. Harris was a man much beloved by those who knew him. He was strong, without having any of the bitterness in his nature that so frequently centers around the strong man. Every one who knew him knew that Dr. Harris would be on the right side of every question. There was never any doubt about that. His death came suddenly and after a short illness, leaving a wife and two children. Dr. Harris never attained a very prominent position in the profession in this State, for the reason that he did not write; but those of us who knew him intimately knew of his ability as a physician and knew that he could,

had he chosen to do so, have contributed much to the medical interest of our meetings, although he was a constant attendant at them. We can say of Dr. Harris that he bravely did his duty under all circumstances, in the face of disease and ill-health, always uncomplaining, always affable and kind. And in his passing away we feel that our loss has been very great, those of us who knew him. If the true criterion of success is to give to life the best that there is in one, Dr. Harris was a successful man, and you can say, those that knew him best, that he wrote happiness into the lives of all that he knew and loved.

Dr. Geo. S. Brown: Dr. Greeson, I understand was born in Van Buren County, and graduated from the University of Nashville. He came to Conway about twenty years ago. He was an honest, honorable man, stood well in the community and stood well with the profession. He was an ethical physician, and was a good man in every way. I can not say so much of him except this, because I didn't know much of his early history before he came to Conway. He was considered a good, honest, upright Christian man.

Dr. E. F. Ellis: Dr. Rice and I were schoolmates in 1885. There are a few outstanding traits in Dr. Rice's life worthy of emulation. First, his devotion to his profession and organized medicine; next, his devotion to his patients; third, his love and devotion for the little children of his community. There was hardly a child in the whole community that didn't shed tears when Dr. Rice passed away. He was one of the best men I ever knew.

President Caldwell: I have a little communication from the Benton County Medical Society:

Dr. Rice attended a course of lectures at the old Missouri Medical College, and later graduated from the College of P. & S. at St. Louis. Immediately following his graduation he practiced his profession for two or three years at Talahina, Okla., and after that, continuously at Rogers, Ark., where he was associated with his brother, Clint A. Rice, in the practice of medicine until his death. He was for many years local health officer and U. S. pension examiner; was ex-president of the Benton County Medical Society, and ex-vic-president of the Arkansas Medical Society; was a constant supporter and booster of organized medicine, and will be greatly missed in medical circles. He possessed a

most cheerful and amiable disposition, was passionately devoted to human folk, always eager to serve.

At the April meeting of the Benton County Medical Society, held at Rogers, a resolution was passed to record and report to the Journal of the Arkansas Medical Society for publication, an obituary of our late esteemed member, Dr. Rufus S. Rice, also to send to his bereaved family the sincere sympathy of the members of the society with the recognition of a mutual great loss sustained.

“OBITUARY.

“Dr. Rufus S. Rice was born on April 5, 1863, at Fayetteville, Ark., grew to manhood on a farm near the old battlefield of Pea Ridge, and died at his home in Rogers, Ark., on March 21, 1923, after a rather lingering illness of uremic coma, the result of a chronic nephritis. He was liberal and benovolent to a fault. It might be said of him that he was a friend to every one.

“Dr. Rice will be greatly missed by the community in which he lived and labored so long; will be affectionately remembered by young and old, and we feel assured that the good he has done will live and bear fruit long after his demise.

“W. J. Curry,

“Guy Hodges,

“H. J. G. Koobs,

“Committee on Necrology.”

Dr. J. L. Jones: I want to say a word concerning Dr. Rice. He was a very dear friend of mine; we were associated together very much. Fifteen or seventeen years ago I first met him at the county society meeting. It became a habit, I guess, with him and with me, that, if I got there first, I would inquire for him and if he came first he would inquire for me. It seemed we were thrown together naturally. I found him to be a high-toned Christian gentleman. He was interested in his church, he was interested in his profession, and I have been told by his friends and family that there were none too poor, or the night too dark, or the wind blowing too hard, that he wouldn't go to their assistance. Now, many, many doctors probably wouldn't consider that as being very complimentary. I have heard him speak of having to leave his patients, and

he seemed to be troubled about that at times. I think that Dr. Rice's life is well worthy of emulation.

The Memorial Session adjourned, dismissed with benediction by Rev. Mr. Hickok.

Obituary.

DR. O. E. JONES.—Oscar E. Jones, M. D., of Newport, died July 14, 1923. Aged 40. He died of heart trouble, while sitting in a chair. He is survived by two sons and three sisters.

County Societies.

CRAWFORD COUNTY.

(Reported by S. C. Grant, Sec.)

The Crawford County Medical Society met in Mulberry, June 28, 1923.

Present: Kirkland, Grant, Wigley, Baker and Bourland.

Visitors: Parks, Harvey, McCormack and Sims, of Fort Smith, and Kirksey of Mulberry.

The essayist being absent, Dr. Bourland gave an interesting report of his trip to the State meeting at Hot Springs.

Dr. Parks, city health officer of Fort Smith, explained the method of ridding the city of mosquitoes.

Cases were reported by Drs. McCormack, Harvey, Wigley and Baker.

FRANKLIN COUNTY.

(Reported by Thos. Douglas, Sec.)

The Franklin County Medical Society met at Ozark, in the office of Dr. Porter, June 25, 1923.

Present: Williams, Blackburn, Porter, Davis and Douglass.

A paper on “Poliomyelitis” was read.

The eligible members have received invitations to join the Medical Officers Reserve Corps of the army.

The next meeting will be held at Charleston, July 10th. The program will include papers on “Typhoid” by Drs. Bollinger and

Williams. Case reports by Drs. Bollinger and Neissl.

CRAIGHEAD COUNTY.

(Reported by Thad Cothorn, Sec.)

The Craighead County Medical Society met June 21, 1923, at the home of Dr. and Mrs. Howell at Nettleton. A regular old-fashioned chicken dinner, with all the good things that go with it, was served by Mrs. Howell. Every doctor showed his appreciation of the delicious repast by evincing a ravenous appetite.

Among those present were: Drs. Altman, Burns, Cothorn, Haltom, Horner, Howell, Jackson, Lutterloh, McAdams, McCracken, Overstreet, Ramsey, Scott, Smith, Strond, Walker and Willett, also Dr. Howell's son, Homer Howell, and Mr. Roy Norris of Nettleton.

Dr. Walker acted as toastmaster and many witty and scintillating toasts were responded to. Among them were: "The Doctor's Idle Dollars," by Dr. Burns; "Choices of Summer Beverages, and Why," Dr. Willett; "The Doctor's Vacation, Why and How?" Dr. Haltom; "A Few Jokes," Dr. Ramsey; "Chickens, Varieties, Uses, Dangers, and So On," Dr. McAdams. Each speaker handled his subject well and much pleasant entertainment was elicited.

Dr. Howell's daughter and Miss Keich furnished some excellent music, whistling, vocal and instrumental.

Some one had circulated the report on Dr. Burns that he was "boosting" Governor Smith of New York for President, and that the reason he was doing that was because Governor Smith leaned toward the "wets." The doctor was given a chance to explain his views, and entered a very strong denial, and asked for a discussion regarding the uses of alcohol in medicine. A general discussion followed and many excellent ideas were advanced.

A vote of thanks and appreciation was extended to Dr. and Mrs. Howell for their generous entertainment, and they were assured that we were all ready to meet with them at any time they saw fit to invite us.

Book Reviews.

Essentials of Surgery.—A textbook of surgery for student and graduate nurses and for those interested in the care of the sick. By Archibald Leet McDonald, M. D. The Johns Hopkins Uni-

versity. 49 illustrations. Second edition. Published by J. B. Lippincott Company, Philadelphia. Price \$2.50.

As the title indicates this book covers the general principles of surgical diseases and the pathological changes which result. Under separate headings, the more important surgical lesions involving special regions of the body are considered.

The Surgical Clinics of North America.—"San Francisco Number," June, 1923. Volume 3, Number 3. Published by W. B. Saunders Company, Philadelphia. Six numbers a year. Price \$12.00.

The Sanford and University of California Hospitals present twenty-four clinics of unusual interest in this issue. Dr. Rixford presents a case of "Carcinoma at the Ileocecal Valve," "Capture of a Loop of Small Intestine with Obstruction," and "A Problem of Intestinal Anastomosis." Full surgical procedures are shown to meet the indications.

Physics and Chemistry for Nurses.—By A. R. Bliss, Jr., A. M., M. D. Lecturer on Chemistry and Materia Medica, Grady Hospital Training School for Nurses, Atlanta, and A. H. Olive, A. M., Phm.D., Lecturer on Chemistry, Hillman Hospital Training School for Nurses, Birmingham. 70 illustrations. Third edition. Revised and rewritten and conforming to the requirements of the Standard Curriculum (1922) of the National League of Nursing Education. Published by J. B. Lippincott Company, Philadelphia. Price \$2.50.

This book furnishes in a concise form a clear presentation of Physics and Chemistry which are of interest to the student and graduate nurse. Serving as a basis for more intelligent study of physiology, dietetics, household economy, materia medica and other nursing subjects.

Diseases of the Ear, Nose and Throat.—Medical and Surgical.—By Wendell Christopher Phillips, M. D., New York. Sixth revised edition. Published by F. A. Davis Company, Philadelphia. Price \$8.00.

This new edition is illustrated with 578 half tone and other text engravings, many of them original; including 37 full page plates, some in colors.

We find a marked revision in the subjects of operative treatment for chronic ethmoiditis; important additions have been made regarding the adult tonsil and other chapters show marked revisions. The author gives the essential features of the principal diseases of the ear, nose and throat, and outlines the modern and approved methods of treatment for these affections.

Preventive Medicine.—An introduction to the practice of preventive medicine, by J. G. Fitzgerald, M. D., F. R. S. C., Professor of Hygiene and Preventive Medicine and Director Connaught Antitoxin Laboratories, University of Toronto. Assisted by Peter Gillespie, M. Sc., C. E., M. E. I. C., and H. M. Lancaster, B. A. Sc. Chapters by Andrew Hunter, J. C. Cunningham and R. M. Hutton, with appendix articles by various contributors. Published by C. V. Mosby Company, St. Louis, Mo., 1922. Price \$7.50.

This book is presented to the medical profession in an effort to outline some of the work of the physician who is to function on the preventive as well as the curative side of medicine.

Dr. Fitzgerald emphasizes the following important measures in the control of disease; early recognition, immediate notification and concurrent disinfection of the infectious discharges and secretions.

The Treatment of Fractures.—With Notes Upon a Few Common Dislocations.—By Charles L. Scudder, M. D., Assistant Professor of Surgery at the Harvard Medical School. Ninth edition. Revised. Octavo volume of 749 pages with 1,252 illustrations. Published by W. B. Saunders Company, Philadelphia. Polished Buckram, \$8.50.

This book gives a complete discussion on the treatment of fractures. It is the author's hope that in time it will be generally recognized that fractures of the bone should be treated primarily and at an early date as practically possible by surgeons specially interested in and trained in traumatic surgery. He cautions physicians not to assume the responsibility of the care of a fracture of the bone without stating to the patient or friends the value to be had from an x-ray and skilled advice.

Regional Anesthesia.—By Gaston Labat, M. D., Lecturer on Regional Anesthesia at the New York University; Laureate of the Faculty of Sciences, University of Montpellier; Laureate of the Faculty of Medicine, University of Paris; formerly special lecturer on Regional Anesthesia; The Mayo Foundation, University of Minnesota. With a foreword by William J. Mayo, M. D. Octavo of 496 pages, with 315 original illustrations. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$7.00 net.

The author presents this book with the object of teaching the reader how this method is successfully used. It gives the general principles of technic, with special instruction for blocking cranial nerves, intra-spinal block and other interesting features.

In a foreword by William J. Mayo, he says: "I do not look forward to the day when regional anesthesia will wholly displace general

anesthesia; but undoubtedly it will reach and hold a very high position in surgical practice."

A Manual of Pharmacology and Its Application to Therapeutics and Toxicology.—By Torald Sollmann, M. D., Professor of Pharmacology and Materia Medica in the School of Medicine, of Western Reserve University, Cleveland. Second edition, entirely reset. Octavo of 1,066 pages. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$7.00 net.

The important features of Sollman's Pharmacology are as follows:

Arrangement: Two sizes of type have been used throughout, the larger print giving a connected and concise statement of the essentials of pharmacology, the smaller type containing more detailed data for consultation.

Plan: To those drugs that are really and generally used extensive consideration is given. The new drugs and remedies are emphasized with definite instructions for their use.

Prescription Writing: This section is simple, easily understood, and will fully equip the student for the correct writing of prescriptions.

The Appendix, in addition to the extensive bibliography, contains a tabulation of average doses classified with reference to their importance and a check-list of important preparations.

Minor Surgery.—A textbook by John C. Vaughan, M. D., Director and Visiting Surgeon Beekman Street Hospital; Instructor in Minor Surgery Columbia Medical College, etc., and Athel Campbell Burnham, M. D., Colonel in United States Army; in charge of the medical department of Red Cross in Poland, etc. Illustrated with 459 engravings. Published by Lea & Febiger, Philadelphia. Price, \$7.75.

The authors of this book give the surgical procedures which are simple and efficient.

A beautiful tribute to nurses is found on the first page, as follows:

"This Book Is Dedicated
to

THE NURSES OF AMERICA,

without whose patience, skill and devotion to duty surgery could not have reached its present high level, and to one

ELLA HOLCOMB,

whose kindly ways and love of humanity brought comfort and courage to thousands of sufferers during her long service at the Vanderbilt Clinic."

New and Nonofficial Remedies, 1923, containing descriptions of thousands of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1923. Cloth. Price, postpaid, \$1.50. Pp. 415+XXXVI. Chicago: American Medical Association, 1923.

The progressive, up-to-date physician can not dispense with the newer remedies, proprietary and nonproprietary. Yet he can neither select them on the basis of the manufacturers' claims alone, nor devote his patients to experiments while he tries out those claims.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually presents the American medical profession with disinterested, critical information about the proprietary medicines which are offered to the profession, and which the Council deems worthy of recognition. In addition to the descriptions of proprietary preparations, the book contains descriptions of those nonofficial remedies which the Council deems deserving of consideration by the profession.

A valuable feature of the book is the grouping of preparations in classes. Each of these is introduced by a general discussion of the group. Thus the silver preparations, the iodine preparations, the arsenic preparations, the animal organ preparations, the biologic products, etc., each is preceded by a general, thoroughly up-to-date discussion of the particular group. These general articles compare the value of the products included in the group with similar pharmacopeial and other established drugs which it is proposed that these proprietary preparations shall supplant.

A glance at the preface of this volume shows that the book has been extensively revised. In fact each edition of **New and Nonofficial Remedies** is essentially a newly written book, brought up to date by those who speak with authority on the various phases of therapeutics.

Physicians who wish to know why a given proprietary is not described in **New and Nonofficial Remedies** will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book) are given references to published articles dealing with preparations which have not been accepted.

New and Nonofficial Remedies should be in the hands of all physicians who prescribe

drugs. The book contains information about the newer materia medica which can not be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

SCIENTIFIC NUTRITION.

In the August issue of *Hygeia*, Dr. McCollum concludes a series of articles on nutrition with the promised recommendations for reforms needed in the American dietary if health is to be maintained on the highest plane, and gives his reasons for the recommendations. He says, "Each person, irrespective of age, should take approximately the equivalent of one quart of milk a day. This may be taken as a beverage or in the form of butter, cheese, cream, buttermilk, skim milk used in cooking, cottage cheese, and so forth. Every one beyond early childhood should take at least one liberal helping a day of greens or pot herbs. The daily diet should include two salads made of materials that are acceptable and digestible raw. There must be a reduction in the consumption of other foods; this reduction should fall on white bread, meat, potatoes and sugar, though these articles may still form a considerable fraction of our total food supply."

DIET IN THE TREATMENT OF BALANTIDIUM COLI INFECTION.

In the treatment of *Balantidium coli* infection, less attention has been given to diet than to other measures. The patients who were given a special diet by J. L. Greene and F. J. Scully, Hot Springs, Ark. (*Journal A. M. A.*, July 28, 1923), have done very well. Their routine procedure in these cases was as follows: The patient was given 2 1-2 quarts (2.5 liters) of whole milk during the day. This was divided so that small portions were given at regular intervals. After several days the milk was supplemented by the addition of one or two soft eggs. The action of the bowels became normal within a week's time. The only drug used was bismuth subnitrate, in 15 grain (1 gm.) doses, during the first day or two, to relieve the cramps and to check the diarrhea. Later, when the bowels became sluggish, stewed fruits were given. This diet

was continued until the feces were free from *Balantidium coli*, when it was gradually increased until the patient was taking a full diet.

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NEW AND NONOFFICIAL REMEDIES.

Insulin.—An aqueous solution of an active principle from pancreas which effects sugar combustion. The strength of insulin is expressed in "units," one unit being one-third of the amount required to lower the blood sugar below 0.045 per cent and cause convulsions in a rabbit weighing 2 kg. which has been previously starved for twenty-four hours. The administration of insulin to diabetic dogs and to man in severe cases of diabetes mellitus restores to the body the lost ability to oxidize carbohydrate, and glycogen is again stored in the liver. If insulin is administered at suitable intervals to a person suffering from diabetes mellitus, the blood sugar is maintained at a normal level and the urine remains free of sugar. Fat is also burned and, as a result, ketone bodies do not appear in the urine and diabetic acidosis and coma are prevented. The administration of insulin is indicated in cases of diabetes mellitus which can not be controlled satisfactorily by dietetic treatment. Overdosage of insulin is followed by the development of serious symptoms which demand immediate treatment. Insulin is administered subcutaneously one, two or three times a day before meals. The dosage required to reduce the blood sugar to the normal level must be established for each patient by determination of the blood sugar before and after administration of insulin. In cases of coma or severe acidosis, an initial dose of 15 or 20 units of insulin may be given, followed at three to four hour intervals by smaller doses with simultaneous administration of glucose.



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Original Articles.

DEVELOPMENT OF THE TREATMENT OF TUBERCULOSIS*.

A. C. Shipp, M. D., Little Rock

He who can write the history of tuberculosis with all its relations to the human family can write the history of mankind from remotest antiquity. In the earliest known human records, the tablets unearthed from the Babylonian ruins, we find evidences from the cuneiform inscriptions that tuberculosis was then a well known and dreaded disease. In the Sanskrit of the ancient Hindus we find this scourge of mankind described and in the Bible in the writings of Moses of the period of about 1500 B. C. we find references to "consumption and fever with inflammation and fiery heat."

Hippocrates, the father of scientific medicine, who was at the height of his fame about 400 B. C., gave a classic description of phthisis which was unexcelled for centuries. He defined consumption as that "disease which is the most difficult to treat, and which proves fatal to the greatest number."

Hippocrates and his followers believed that phthisis in all stages was curable and gave as best treatment a change of residence, sea voyages and country air. The study-loving Pliny in his "Cause, Nature and Cure of Disease," gives as a most successful treatment of consumption living a simple life in pine forests. There was no change in the treatment of tuberculosis from the time of Pliny until that of Galen (A. D. 131-201) who in the main believed as did Hippocrates about the nature of tuberculosis, but also that the disease was an ulceration and should be treated

by moving patients into dry arid places in order to dry the secretions.

We find no change in views concerning cause, nature and treatment of consumption for almost 1500 years when the period of anatomical study concerning the lesion of tuberculosis began with Sylvius. To this period belongs the names of many illustrious men of medicine but as their work dealt with other phases of the problem rather than treatment, we shall pass their period merely with mention.

For two hundred years from the time of Willis to that Villemin practically nothing of value was added to the treatment of tuberculosis; but much concerning the nature of the disease and its diagnosis was discovered, and to this period belong some of the best known workers in this field of medicine such as Boyle, Laennec, Magendie, Morton, Addison and Virchow.

About this time, viz., the middle of the nineteenth century, the medical world was divided in opinion as to the transmissibility of tuberculosis. The argument grew bitter and great professional animosities resulted. In 1865, however, this question which had been debated for 2200 years was settled forever by work of Villemin who during that year published his paper on "The Cause and Nature of Tuberculosis and the Inoculation of the Same from Man to Rabbit." Though the question of transmission was settled it was not until 1882 that the causative organism of tuberculosis was found by Robert Koch and its causative relations to the disease so completely demonstrated that it has never been disputed since. Yet with all this great advance in regard to the nature of the disease nothing new has been given the world in the realm of treatment. This statement does not mean that there was no advance made in the management of the disease or in the applica-

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-3-4, 1923.

tion of the principles of treatment already mentioned, viz., abundance of open air, nourishing food and rest or supervised exercise. It was during this period that we have the beginning of the sanatorium method of dealing with the disease.

In 1853 Brehmer made the statement "Pulmonary tuberculosis is curable." He was at once attacked by many as a charlatan and a quack. In spite of bitter opposition he set about to prove his contention and build the first sanatorium at Gorbensdorf. The basis of Brehmer's treatment was abundant nourishment, fresh air and hydrotherapy all given under most suitable surroundings. Brehmer was the father of the modern sanatorium treatment of tuberculosis and though his methods have been modified and refined they are today the same principles he used, as his were the same as those of Hippocrates, Galen and Willis, simply having undergone the process of normal evolution. In short, the physician who does no more for his patient than prescribe rest, diet and fresh air is going no farther in his treatment of tuberculosis than did Brehmer and to hold to this as the sole treatment is to cast aside the work of the most noted scientists working in this field during the past thirty years.

From the time of Koch two methods of treatment of tuberculosis date, one used by the adherents of the old method with certain modifications, the other advocated by Koch and the adherents of the biological method who place just as much stress on rest, diet and fresh air, but believe that more can be done to help the patient to a cure.

Looking backward from the vantage point of today over the work of the past thirty years it is evident that the most successful method of treatment of tuberculosis must be biological. All are agreed that the means of defense against the invading tubercle bacillus is by the production of immune bodies and by a process of walling off the focus of infection.

It follows that if our patient is to recover from the infection, regardless of the method of treatment, it must be by building up a sufficient amount of immune bodies to overcome the invading organism and its products, hence the process of getting well of tuberculosis is a biological process, the same as the recovery from any other bacterial disease. Of

course, the body will be able to do this best in the best environment, which is in the open air at rest and with sufficient nutrition. Certainly this is agreed upon.

Now, if anything further can be done to assist or stimulate the body to build up more certainly and more rapidly adequate immune bodies, it is a step in the right direction. This is just what biological treatment does and for that reason I have advocated and practiced biological treatment of tuberculosis in all its forms though not necessarily in all its stages. Each case must be a law to itself as far as method of treatment is concerned.

The length of this paper will not permit, nor is it necessary for me to go into argument for biological treatment of tuberculosis or the development of the technique. Both may be found in standard textbooks of Immunology.

Among the best men active in the early development of the biological treatment of tuberculosis who have worked out the fundamental principles and placed the method on a sure and scientific basis are—Koch, von Ruck, Maragliano, Klebs, Wright, Von Behring, Hirschfelder, Hahn and Laudmann. Many other well known workers, too numerous to mention, have corroborated the findings of these men in that the various biological products for the treatment of tuberculosis, in incipient and glandular cases, give splendid results.

Early in the development of the biological treatment it became apparent that O. T. was to say the least, an incomplete antigen and it was with a view toward obtaining a complete antigen that Koch produced his bacillen emulsion, von Ruck and Maragliano their water extracts and later von Ruck his modified Tubercle Bacillus Derivatives. In these last there is no question but that we have a complete antigen so far as the tuberculosis infection is concerned, but so far as the disease tuberculosis in the later stages is concerned, we must go farther than tubercle bacillus to obtain a complete antigen.

A complete antigen is one that will cause the production of antibodies to all the foes against which the body must defend itself in a given disease. With this definition in mind let us enumerate the various factors against which the body must defend itself in the disease, tuberculosis, and build our vaccine accordingly.

First, there is the tubercle bacillus.

Second, we have the products of the metabolism of the tubercle bacillus, the soluble exotoxin.

Third, there are substances produced by the interaction between the invading organism and the cells of the host. These substances may be the same or similar bodies as those described in the "Aggressin Theory" of Bail, which as Park says grew out of an attempt to explain the so-called "phenomenon of Koch", i. e., the fact tuberculous animals, if inoculated intraperitoneally with a fresh culture of tubercle bacilli quickly die. Bail found that if a mixture of this intraperitoneal exudate and tubercle bacilli were injected into healthy guinea pigs they quickly died. According to his findings the exudate alone had no appreciable effect on healthy guinea pigs and the live tubercle bacilli caused death only after many weeks. This substance which seems to do for the invading organism what the eystase does for the cells of the host, Bail called "aggressin."

That these substances or similar substances are formed at the point of conflict between the invading organism and the cells of the host, that they are highly toxic to the host and that they must be included in any antigen before it may be said to be a complete antigen has been the basis of our experimental work upon the results of which we have based our treatment.

In our efforts to demonstrate such substances we took the contents of tuberculous cavities and macerated in distilled water with frequent shaking for twelve hours. In this way we were able to break up all cells and secure in the solution intracellular as well as extracellular substances and ferments formed as a result of the struggle between the invading bacteria and the body cells. This would contain not only such products of the tuberculous infection but also those resulting from the mixed infection and of course a small percentage of tuberculin. This mixture was filtered through a Berkefeld filter and a clear filtrate secured which gave a white coagulum upon heating showing that it was high in albumen content.

This filtrate proved to be toxic to guinea pigs whether tuberculous or not; but much more so to tuberculous pigs. We called this

filtrate "autolysate" because it was obtained by lytic action of distilled water and was produced in the body itself. The toxicity of the autolysate varies greatly as prepared from different sources. Upon the addition of the autolysate to a vaccine prepared from the whole tubercle bacillus we believe we have a complete antigen so far as the disease tuberculosis is concerned and when we add to this autogenous vaccine we feel that we have a complete antigen for our patient. Our vaccine will contain:

First, the whole tubercle bacillus or derivatives from the entire bacillary body.

Second, the tuberculin of Koch in small quantities.

Third, the autolysate containing the toxic products of the fight between the tubercle bacillus and the cells of the host.

Fourth, Organisms found in the mixed infection together with their interaction products.

If there is any other substance found in the disease, tuberculosis, that can be utilized in an antigen it does not occur to us at this time where it can be found, and if there is any substance used here that is not necessary to the production of a complete antigen, we do not know which it is. Additional substances may yet be found, but certainly no antigen is complete that contains less than these four substances. We believe the report of our work before the Pulaski County Medical Society, April 1919, gives us priority in the use of the autolysate sterilized by filtration, to give us a complete antigen for the treatment of tuberculosis.

So much for the preparation we are using. The most important part of the work is not the theory back of the treatment, but the results obtained. At the time I will report a few cases diagnosed and referred to me by colleagues and hope they will discuss them.

Before citing a few case reports, however, permit me to digress from strict adherence to my subject to emphasize the importance of early diagnosis. The patient's chance of recovery decreases directly as the degree of infection increases.

We have a most terrific arraignment of the medical profession when we take into consideration, on the one hand, the fact that

one out of three deaths between the ages of 18 to 45 in registration areas is due to tuberculosis, while on the other hand, as has been said by one writer, "No chronic disease is more curable if found in time."

It is true that all cases do not come to the doctor early; but if this is the most common disease, it ought to be the one most commonly diagnosed in practice.

The diagnosis of tuberculosis is made not up on any one finding, but as the result of data gathered from every angle of the case. Briefly our outline for examination is as follows:

1. A complete history is obtained.
2. Careful physical examination is made. If a suspicious lesion is found examination is made and an accurate description is entered on chart.
3. X-Ray examination, fluoroscopic, and in all cases where indicated, stereoscopic pictures are made.
4. In certain obscure conditions such as tuberculosis in the cranial cavity, intraocular tuberculosis; in short, cases where the focus of infection cannot be observed directly, the tuberculo-complement fixation is determined.
5. If there is still doubt concerning diagnosis the local, focal and general reaction to the biological test is determined according to the usual and established methods. Formerly when using tuberculin in delicate cases we followed the technique of Petruschky; but in strong adults that of Pottenger. Recently, we have used practically altogether von Ruck's. We start our patient with an initial dose of the Modified Tubercle Derivatives, ranging from .02 to .1, depending upon general condition of patient and provided fever does not go above 99.6, with test each three hours for three days during daytime. If there be fever, patient is kept at absolute rest until same disappears. At the end of twenty-four hours after an initial dose, local, focal and general reaction is observed. In case reaction is very mild with small dose .02 cc., it is doubled at the end of thirty-six hours as a precaution against sensitization. The dosage is now increased each fifth to seventh day until .2 cc. is reached and tolerated without fever, at which time patient is tested out with the autolysate, beginning with the same dosage as the vaccine and as soon as the tolerance of the patient is

determined it is given along with the tubercle bacillus vaccine together with autogenous vaccine in which the diluent used is the autolysate.

The following cases are chosen not only to demonstrate the results of the method of home treatment, but to show that the patient's condition remains good after being put to the severest tests; viz: pregnancy, measles and pneumonia. One case is given to show the effect of an intercurrent influenza upon a case otherwise doing well.

CASE NO. 1 O. T. T.

Age 29, millwright. Usual weight 165, present weight, 145. Complaint: Cough, hoarseness, pain in chest, night sweats and afternoon fevers. Case diagnosed pulmonary and laryngeal tuberculosis by the late L. P. Gibson and patient was advised to go west at once. Patient referred to me by Dr. Caldwell with diagnosis of laryngeal tuberculosis. Treatment was begun October, 1919, weight 145, patient was discharged February, 1920, weight 158. Case apparently arrested. Patient has lost no time from his work to present and now weighs 180 and is clinically cured case.

CASE NO. 2, Mrs. J. M. C.

Age 25 years. Both parents, two sisters and two brothers died of tuberculosis. Complaint. Loss of weight, headaches, backaches and fevers. Usual weight 94 lbs., and present 82 lbs., loss of 9 lbs. during one year. Blood pressure, systolic 90, diastolic 70, diminished breath sounds, medium moist rales in both apices extending to fourth interspace in right lung. X-Ray examination showed diminished lighting in these areas. Sputum x.

Treatment begun 5-19-20, weight 82 lbs.

Discharge, 4-15-21, weight 108 lbs. Gained 26 lbs.

This patient became pregnant short time after discharge, went to term, gave birth to normal child which she nursed. She was attended by Dr. S. B. Hinkle. This patient is clinically free from tuberculosis to date.

CASE NO. 3, A. H. D.

Referred by Dr. E. S. Jones, Hammond, Ind.

Patient had been in bed four months following attack of tuberculous pneumonia.

Sputum positive by Dr. Jones' test and verified by ours.

Treatment begun 11-13-20, weight 105 lbs.

Discharge 2-7-21, weight 118 lbs.

Patient writes under recent date that she now weighs 136 and is doing all her housework and caring for a baby twenty months old.

CASE NO. 4, M. N.

Female, age 20 years. Occupation student.

Usual weight 116, present weight 105, eleven pounds lost in nine months. Constant and annoying cough but no sputum. Afternoon temperature 99 to 100. Posterior cervical glands enlarged. Pulse 100, blood pressure 102-70. Began treatment June 1919. Patient did well until October 14th, 1919 at which time weight was 114 1-2, a gain of 9 pounds. Complement fixation for antibodies at this date was negative with patient's .1 cc serum and only XX positive with .2 cc. At this time patient contracted influenza. Saw her November 1st, she had lost four pounds. Patient gradually lost during winter, weight reaching 107 by April 1920, when she went to Colorado, where she was under constant treatment until October 1st when she returned to Little Rock upon the advice of her physician. Her weight was then 101. Two weeks later she went to a sanatorium in El Paso where she seemed to improve for a while, but finally began to lose again. Patient died spring of 1921.

CASE NO. 5, K. C.

Age 7 years, female.

Complaint: bronchitis, supposed cause, pneumonia. Temperature 99, pulse 100, cough 5 1-2 years' duration, worse in morning. Expectoration profuse and yellow. Daily afternoon fever. Patient poorly nourished, skin dry, fingers clubbed, nails corrugated. Heart rapid, myocardial sounds weak. Medium moist rales with deficient breath sounds throughout middle and upper lobes of right lung with physical signs of small cavity at upper part of hilus of right lung. Practically same physical findings in left lung from apex to level of 4th rib with exception of cavity. These findings were verified by x-ray.

Treatment began August 23, 1919, sputum x, weight 56 lbs. Sputum negative Nov. 6th, 1919, and has remained so to date. Repeated examinations have been made both by direct and concentrated methods. May 1, 1920,

weight 68 lbs. At this time patient took measles which became complicated with bronchopneumonia. Temperature for several days ranged from 103 to 104, one time reaching 105. Uneventful recovery was made. No bacilli were found in sputum at any time during pneumonia. We regard this case as one of great importance since it has been demonstrated that measles causes a decrease and at time the disappearance of tubercle bacillus antibodies and thus allows the disease to flare up and become acute. This did not occur in this case, because, as we believe, the tuberculous process had been overcome before the measles and pneumonia. Patient moved to Hot Springs in March 1922, weight 82 lbs., a gain of 26 lbs. Patient clinically shows no evidences of tuberculosis.

These few case reports illustrate the progress of an average case of early and moderately advanced tuberculosis under treatment above outlined. At this time I will submit in summarized form a report of the Secretary of the Pulaski County Anti-Tuberculosis Association concerning 174 cases treated at the Isaac Folsom Clinic. The records, follow up work, weights and temperature in these cases have been done under the direction of the nurses of the Anti-tuberculosis Association, and complete records are filed in the offices of the Society and with the Registrar of the Medical Department of the University of Arkansas.

Permit me to call your attention that in this class of patients it is most difficult to get good results, as housing conditions are poor, food of the right kind and amount is seldom to be had, and rest is out of the question. In order to live these patients must work. To fall out one day with a hemorrhage and be back at work the next has been the history of several of the cases reported, and none of them are people who can enjoy a long period of rest or a change of climate so often insisted on as necessary to recovery from tuberculosis. Allow me to say that no one thing has caused more hardship among the tuberculous than the medically sponsored idea that somewhere in the golden west health and cure for tuberculosis await all who can avail themselves of a residence in the "get-well" country.

Tuberculosis is a medical disease and should be so treated, and most of it must of

necessity be treated at home. Because of this fact and recognizing the special nature of the work there is a move in England to place a special course in medical schools for training men in this line of work. Certainly we

Many of the cases now marked UNIMPROVED will soon enter the IMPROVED column. I am also giving a report on a group of my private patients that were treated under more favorable conditions in which results are much more satisfactory than in the above group.

REPORT OF THE PRESENT CONDITION OF 218 PATIENTS TREATED AT THE CLINIC OF WATKINS, SHIPP, BOND & RHINEHART.

Incipient and Moderately Advanced Cases.

Present condition	No.	Average time of treatment	Average time since treatment	Average gain or loss in weight	Maximum gain or loss	Complement fixation
Arrested	188	5.9 months	19.9 months	10.2 lbs. gain	53 lbs. gain	satisfactory
Improved	21	6.5 months	15.2 months	3.6 lbs. gain	15 lbs. gain	satisfactory 18 unsatisfactory 3
Unimproved	1	4 months	12 months	3 lbs. loss	3 lbs. loss	unsatisfactory
DIED	3	4.5 months		3.3 lbs. gain	12 lbs. gain	unsatisfactory
Unable to locate	5	4.5 months	13.5 months	7.2 lbs gain	22 lbs. gain	unsatisfactory satisfactory

REPORT OF THE PRESENT CONDITION OF 174 PATIENTS TREATED AT THE ISAAC FOL-SOM CLINIC.

Incipient and Early Advanced Cases—159.

Present condition	No.	Average time of treatment	Total gain or loss in weight	Average gain or loss in wt.	Maximum gain or loss	Complement fixation
Arrested	31	9.9 months	387 lbs. gain	12.9 gain	27 lbs. gain	30 satisfactory 1 unsatisfactory
Improved	111	7.6 months	633 lbs. gain	5.7 lbs. gain	24 lbs. gain	98 satisfactory 13 unsatisfactory
Unimproved	17	6.5 months	56 lbs. gain	3.3 lbs. loss	19 lbs. loss	10 satisfactory 7 unsatisfactory

Moderately and Far Advanced Cases—15.

Present condition	No.	Average time of treatment	Total gain or loss in weight	Average gain or loss in wt.	Maximum gain or loss	Complement fixation
Arrested	1	11 months	3 lbs. gain	3 lbs. gain	3 lbs. gain	satisfactory 1
Improved	7	8 months	49 lbs. gain	7 lbs. gain	29 lbs. gain	satisfactory 6 unsatisfactory 1
Unimproved	1	5 months	0	0	0	0
DIED	0					

need more men in this country making special study of this our most common disease.

Most of this group of cases came to the clinic with their trouble already diagnosed. I have divided them into two groups.

1. Incipient and early advanced.
2. Moderately and far advanced.

No cases are reported in this group except those that were treated for four months or longer. I wish to call your attention to the fact that the complement fixation test was satisfactory in practically all those cases that did well and unsatisfactory in most of those that did not do well.

REFERENCES

1. *Villemin: on the "Cause and Nature of Tuberculosis, and the Inoculation of same from man to Rabbit, 1865.*

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DISCUSSION

Dr. H. Thibault, of Scotts: I am glad that Dr. Shipp has read this paper, for several reasons. The first reason and probably the most important one is that it shows how slow is human progress in everything. When a man first becomes a member of the Arkansas Medical Society and attends one of these meetings, he feels like the next year the millenium is coming anyhow; that the medical profession is going to be reformed; that the public is going to be reformed and that we are going to treat diseases with a certain mechanical precision that will insure results every time. About the fifth year that he has been a member of the Arkansas Medical Society, he wonders why none of these things have happened yet. About the 25th year he decides that they are not going to happen in bulk any time; but that they are going to happen by molecular growth. And, so probably the treatment of tuberculosis, if it is every entirely satisfactory, will happen by molecular growth.

Probably the simplest and the best work that has been done on what Dr. Shipp designates as the biological treatment of tuberculosis has been done by Vaughan and that group of men who have tried to simplify rather than to complicate the biological work by reducing the number of chemicals employed at the time and determine the definite action of the different chemicals that go into treatment of tuberculosis. Now, it is a very easy thing to get an array of figures that is astounding in the treatment of any of these diseases, because the average man does not keep up with the cases as well as Dr. Shipp does. Another thing, we often get results in clinical cases when we don't treat them at all. This is proved by the results of postmortem examinations, that show that a great many people have recovered from tuberculosis that they had never suspected and the family physician had never suspected that they had it. So much for that.

The tuberculosis bacillus itself contains probably four distinct products. I may say that I cannot agree with Dr. Shipp about the anti-toxin, that it has never been proven and I don't see how we are going to prove an anti-toxin when we haven't proved the existence of the toxin; that is, in the sense of the toxin of diphtheria or tetanus. As to the toxin of the tubercle bacillus, we have never proved that it was the bacillus that produced it. So that I am leaving that out of my enumeration of the factors in the tubercle bacillus. As to the so-called typhoid substance, as far as the experiments go, that may be ruled out as being absolutely inert. Then it contains a substance that can easily be separated. When you come down to the protein frame-work, we have left one substance which is common probably to all protein molecules, a poisonous substance that produces no reaction for good in the human body or any other body; it is simply a poison and if injected in a definite given dose will produce death every time it is injected.

This poison is not only in the tubercle bacillus but in all proteids. Because of the disintegration of the tubercle bacillus, we have this poisonous portion of the protein molecule present. The other protein substance of the tubercle bacillus is a specific substance. This is the substance on which Dr. Shipp and other doctors all over the country have based their hope. It is the one substance in which Vaughan says that we see that faint gleam of hope, because it is specific. It will sensitize a given animal to the tubercle bac-

illus only; the whole protein molecule. And it will produce and set up anaphylaxis against injection of the whole tubercle bacillus; so that if we use either this specific substance alone or the whole tubercle bacillus, we may sensitize the patient against the tubercle bacillus. Right there is the hope of the therapist, if not the doom of the patient.

In further speaking of this, Vaughan and others who have experimented in the laboratory advise against its use in the cases that are well developed and those that are fairly advanced and those that are moderately advanced, because when you sensitize the patient it may produce a disintegration of every tubercle bacillus in that patient's body at one time, setting free this poisonous portion of the protein molecule that means death to the patient.

Now I have seen several cases where this took place. It don't matter what the substance injected is; that is, whether it was O. T. or some other derivative or emulsion of tubercle bacilli. But in any case it contains this sensitizing portion of the molecule which in a moderately active case, with a great many bacilli in the patient probably to a certain extent walled off, it produced a change for the worse.

These cases have been generally followed by the usual symptoms of anaphylactic shock, loss of heat, with subnormal temperature and other pictures that we recognize, and very often it takes place rather slowly if the patient is not fully sensitized and we simply have a melting away of the patient.

By the way, I saw this in one case that Dr. Shipp treated, that he recalls to mind, of a negro woman with what we thought was a moderately advanced or incipient case of tuberculosis. In the presence of biological treatment she simply threw up her hands and disintegrated and she wasn't very long about it. This woman was not one of those that was denied the advantages of rest, because other members of her family took care care of her and she could rest all that was necessary and there was no element of that sort of interference.

Of course, as Dr. Shipp said, in the beginning, the best plans of campaign for the treatment of tuberculosis lead to disappointment. A certain amount of cases will continue to die, even when we have all our patients diagnosed early. However, that is not the side of this subject I want to protest against. It is the treatment of the cases of tuberculosis at home. Not because of the effect on the patient treated. For the sake of argument, I will grant that that patient can be better treated at home, if that is satisfactory. But, without sufficient of the educational factors, these patients will scatter the disease among the children of that same family and among the neighbors. This factor of danger ought to be eradicated in the early days of the infection. The patient should get educational treatment in the institutions, and then let him come back home after he has gotten the education; but not until then.

Dr. J. C. Cunningham of Little Rock: The reason why most men who are doing work along this line are criticised is because we are not closely enough associated with them to appreciate the value of their work. I don't think there is anyone who could follow Dr. Shipp and see the wholeheartedness with which he works to say nothing of the results exhibited but who would feel that

we were at least indebted to him for the effort to give us something that we haven't heretofore had in the treatment of this common disease. It is an easy matter to go thru a long mental process using many technical terms, a false promise and lots of theory just as the gentleman who has preceded me has done, to prove or disprove anything. No one will disagree with him about the value of placing all those patients in a hospital, but up to the present time we haven't the institutions in which to place them, nor even the ideal home surroundings to prevent them from infecting the community or their own family. Therefore, anything that will help these folks at home; the one who is doing that work should receive our fullest encouragement.

I feel like that we owe Dr. Shipp a debt of gratitude for his earnest efforts even though no great benefit should come from his treatment. He has done this work at a sacrifice for we know that nowadays nearly everyone is inclined to get off on a "hobby" and anyone who advances a cure or treatment for anything, no matter how great its benefit may be, we are apt to call him a "hobbyist," but I am sure that Dr. Shipp is willing to pay the penalty of being called a "hobbyist" if he has been able to add anything to the treatment of this dreaded disease.

I have done some work along this line in a cruder way not following exactly the same methods as followed by Dr. Shipp and I want to say my results have been surprising. Cases that I thought were hopeless, I have been able to benefit and I feel that had I followed it out in the same scientific and diligent manner as did Dr. Shipp I would have gotten even better results. Just as it is with people; we dislike them because we don't know them and so it is with their work—we criticise it simply because we are not familiar with it. (Applause.)

Dr. D. C. Lee, of Hot Springs: I would like to have Dr. Shipp explain, in closing the discussion, what he means by the complement test being satisfactory. Also, if the doctor has the data at hand, I would like to know what percentage of the early cases show positive complement fixation.

Dr. D. C. Walt, of Little Rock: I am in hopes that Dr. Shipp will succeed in his treatment to destroy the infection upon a definite plan. I have heard some of the best men make claims for tuberculin and others of the same class condemn it. The crime is we have a waiting system and allow people to have tuberculosis as we do every other kind of abnormality instead of trying to keep it from happening. The sanatoriums feed and drain patients badly. That alone would prevent me from being anxious to send sick people there. I am glad if Dr. Shipp has developed his treatment to the point that he can destroy the tubercle bacilli and hope experience will verify it, and that it will hold good. It is the first time I have heard it presented in as positive manner. I hope very much that it will prove positive in its results. (Applause)

Dr. S. B. Hinkle, of Little Rock: I have been rather closely associated with Dr. Shipp during the last four or five years. He had been doing this work on tuberculosis some time before I came back from the world war. During this time I had opportunity to see the results in a great number of cases; I mean results apparent to the layman or to the ordinary doctor in the general practice of medicine.

A particular case that I feel I ought to report was a young woman who was being treated by Dr. Shipp for pulmonary tuberculosis; where the tubercle bacillus was repeatedly demonstrated in her sputum. This young woman got married and about the time she was discharged from Dr. Shipp's treatment, or perhaps before, she became pregnant. I cared for this case through the pregnancy and delivered her of a normal baby.

The patient nursed this baby until it was a year old; and to assure you that the baby and the mother are both well, the mother has not been sick a single day since she left the hospital—so far as I know, she has not been in bed with sickness a single day—and this baby is now a normal weight, healthy, happy baby, a little over a year old, and has gone through the measles this spring. I saw it just a few days ago.

Now, it occurs to me that this should be considered as one of the supreme tests of the efficiency of his treatment. I have had the pleasure of referring to him a number of cases of incipient and mildly advanced tuberculosis. I have this to say that I know nothing of his treatment any more than what he has told you today. I didn't even remember that very long. He has told it all to me a number of times; but I didn't have the time, the inclination nor the brains to keep up with it, but I do know those patients got well.

We had a case from the nearby town of Benton some three years ago, who had a mildly advanced case of tuberculosis, a young woman who had her family cares, I am sure, with three or four children, and this woman has in that time regained her normal weight. She has been doing most of this time her usual household duties, and, as far as I know, she is just as well as any woman we know.

One of these cases, particularly the one Dr. Cunningham had in mind when he discussed the paper, I was very well acquainted with. This was a woman perhaps 38 or 40 years old, when he began to treat her five years ago for pulmonary tuberculosis. I have some idea of the treatment that he had used; something similar to the treatment of Dr. Shipp's. This woman is working practically all the time in the house, in more or less of a darkened room at that, and has worked hard every day; carried on her work at home and cared for her child and kept it in school. I had the pleasure of seeing this patient just a day or two ago and you cannot tell, as far as outside appearances are concerned, that she is not a normal, well healthy woman.

I have for the past three or four years, when I find a case that shows me suspicion of tuberculosis, not exactly a case of loss of weight and temperature and pallor and other things, especially if I can't find some evidence of tuberculosis of the lungs, made it a rule to refer it immediately to the x-ray. When it shows me evidence of pulmonary tuberculosis or if there are glands involved, I refer them to Dr. Shipp instantler.

Now, where these patients are left alone, where they are unmolested for a reasonable length of time, it is my pleasure to say that I haven't seen a single solitary failure. There is a great deal of lay and professional objection to Dr. Shipp's treatment. Why, I don't know. But in numbers of cases patients are interfered with and some of them have gone West. Dr. Shipp and I have particularly in mind one of these patients who went West and never came East any more.

It is a pleasure to me to offer what little I have of information regarding the treatment of tuberculosis that Dr. Shipp gives you.

Dr. Wm. Breathwit, Pine Bluff: In discussing the paper of Dr. Shipp, it is my purpose not so much to discuss the paper, but rather to enter a protest and issue a warning.

The protest is for all of us actively engaged in the practice of our profession, to lend a deaf ear to unproven cures. A number of years ago Koch believed he had found a cure in Tuberculin and so gave it to the profession. In the succeeding years, almost each of them has brought a cure, and yet we have none that is worth-while. Our Sanatoria are doing more with rest and diet than all else and while research should have every encouragement, we should be slow to accept their claims until they are proven. I have no fault to find with Dr. Shipp's method unless he claims for it a Cure. I believe him too earnest and too sincere to make false claims; but God deliver us from cures that do not cure.

The warning that I would sound is for all of us to make our diagnoses earlier, to suspect every sick person as being tuberculous until proven not to be. The surgeon makes an exploratory incision, so we too should adopt the 'suspect' as he does and watch accordingly; because by this method only can we make the diagnosis sufficiently early to bring about an "arrest" before there has been wide-spread tissue destruction.

Let us hope that Dr. Shipp may find a method that will cure; but let us call nothing a cure until it is proven a cure.

Dr. O. M. Bourland, of Van Buren: We all realize the importance of this subject. I would like to ask Dr. Shipp to state, in his rejoinder, if he is cognizant of the treatment in all the State sanatoria or in a portion of them, and if in the State sanatoria there has been any resort more or less to the use of biological treatment.

Dr. F. Vinsonhaler of Little Rock: A question has just been asked in reference to the case of laryngeal tuberculosis. That was very interesting to me. Unfortunately, not being able to hear what the doctor read, I am not in a position to know whether he said the case was arrested or cured or not. I would ask that he be explicit on that point when he gets up to close the discussion.

It is well known in the treatment of laryngeal tuberculosis in the sanitarium that the vocal cords are, as nearly as possible, immobilized. That is, the patient writes his wishes on a tablet; however well he may be able to speak, he is not allowed to speak. Immobilization is very well known in the treatment of joint tuberculosis and tissue tuberculosis, and is one of the requisites if they recover.

Laryngeal tuberculosis has been cured, not only arrested but cured, not only immobilization and internal treatment alone but by local treatment; that is, by the galvanic current and the cautery and the application of formalin. Many cases have been reported along with arrested pulmonary tuberculosis of the complete cure of laryngeal tuberculosis. I myself have personally seen two cases of laryngeal tuberculosis cured by the application of formalin, the galvanic and cautery, along with absolute rest.

The attitude of the profession in reference to the treatment of tuberculosis by this method is one of skepticism. It may be defined, as Woodrow Wilson expresses it, as one of watchful waiting. History is filled with methods of treatment of tuberculosis that have arisen and become prominent and have past away and have

been discarded, so that the profession may be, in a certain sense, excused for its attitude.

Dr. T. B. Bradford of Brinkley: I do not want to throw any cold water upon any of the cures of tuberculosis, but I want to make the prediction that, if the cures that have been launched for the cure of tuberculosis, were placed before a jury of competent people they would not stand up. I want to make the further prediction, not being a prophet nor the son of a prophet, that the cure of T. B. is in its prevention. It has been the hope of humanity since time immemorial that we could beat the train to the crossing. It has been the hope of humanity that they could sin and get away with it; that a fellow could stay up all night and go home the next day and have the medical profession to treat him and relieve him of his head-ache. The hope for the cure of tuberculosis, as the doctor has intimated, is in its prevention. I have heard some of the best men over the country, and the burden of their discussion has been along the line of rest. You know what rest is. I trust that the medical profession, as the days go by, will more and more get away from the fact that we are trying to cure a trouble that ought to be prevented.

I take off my hat to Dr. Shipp, my personal friend, in the research work that he has done in this labyrinth in which he has found himself. His statistics are enlightening, ennobling and inspiring. I bid Dr. Shipp God-speed in his work of trying to cure tuberculosis.

Dr. Robert Caldwell of Little Rock: I would like to give a description of the larynx in the case of laryngeal tuberculosis which Dr. Shipp reported. At the junction of the posterior and middle third of the right vocal cord was a polypoid mass about half the size of a split pea. The right vocal cord was very much hypertrophied with little white areas over it. A small ulcerated area presented itself posteriorly over the right arytenoid cartilage. The posterior commissure was edematous as is so often seen in the early stages of laryngeal tuberculosis. I removed the polypoid mass under cocaine, and the whole laryngeal pathology cleared up under Dr. Shipp's treatment in a few months. I am for any treatment that will help these patients. Here was a man who had been advised to go west by one of the leading internists of our state, and was even told that if he did not do so would probably die in six months. This man kept at work, supported his family and, instead of being a burden to society was a help.

Then for instance take eye diseases. I have seen several cases of corneal ulcer where there was a very small ulcer two of three m. m. from the corneo-scleral junction, or maybe two or three such ulcers close together, and oft times coalescing, cleared up almost magically under tuberculin treatment after weeks of local treatment had failed to give relief. I have seen the same results from tuberculin in episcleritis, especially where there is a hypertrophied like conjunctival area growing over onto the cornea. Whether a non-specific protein injection would have given the same results I cannot say. But why experiment when we get such results.

Dr. Earle H. Hunt of Clarksville: This is a subject we are all interested in; but I don't think we study it enough. I don't believe that we appreciate the work that Dr. Shipp has done. But I don't think he should be encouraged, nor, on the other hand, discouraged. We can't, any of us,

criticize because we don't have the time or inclination to follow that line that he has, as Dr. Hinkle says. I think he left that patient with laryngeal tuberculosis in 1921. When he gets up at the close of this discussion, I would like to know how he is in 1923. I have never seen a case of arrested laryngeal tuberculosis, and I would like to know the progress up to date.

Dr. Shipp (in response) I wish to thank the gentlemen for their discussion of this paper. I shall refer to Dr. Breathwit's discussion first. I am glad that he called attention to the fact that I have not claimed to have a cure, but simply a treatment.

I thank you for your criticisms, favorable and unfavorable. Probably the most constructive criticism any research man may have is adverse, and I assure you that I have tried to be my own most merciless critic. Because of the fact that this has been research work it has not been published sooner, though I have been urged from New York to Arkansas to do so. There is such a thing as a graveyard of research workers and woe to the research man who in the language of the boy of the country "goes off half-cocked." I did not want to publish anything until it had been tested out in so many cases that no one, under the same condition and working with the same technique, could fail to secure the same results.

Vaughan, in his speech at St. Louis before the National Anti-Tuberculosis Association, said that he believed that this question of the treatment of tuberculosis would be solved in a biological way, and he had faith enough in the American research men and the American physician to believe that somehow the solution would come out of America. I hope that he is right.

I shall not discuss in detail these discussions because they do not need it, but will simply answer direct questions as best I can. In answer to Dr. Thibault, have I lost any cases? Did you ever lose any cases of pneumonia, typhoid fever, or even malaria? Yes, I have lost cases, and I believe that concerning advanced cases I am one of the chief pessimists here.

Again Dr. Thibault disagrees with me in respect to the existence of an exotoxin. I know the doctor did not understand me as everybody has agreed on the existence of this substance in the sense employed in this paper, viz., the products of secretion or of metabolism of the bacilli during their growth.

Now, about treating the patient at home, I heartily agree with Dr. Thibault in this respect; but until the legislature of our state and the philanthropists provide sufficient sanatoria, where in the world are we to treat and educate these patients? It is a Hobson's choice with us. They have to be treated at home.

I thank the gentlemen for discussing the cases of biological treatment presented. I will pass to the question asked by Dr. Lee, viz., What is meant by satisfactory complement fixation test? You have read quite a good deal about this in scientific papers and because of lack of time I will not enter into discussion of technique; but wish to say that in my opinion complement fixa-

tion for tuberculosis is worth very little as a diagnostic measure. We do believe, however, from our observation, that it is worth very much as a prognostic measure. We have cases come to us with negative sera, or to positive, and after treatment during varying periods of time we find these cases becoming positive in sera of one-third tenth dilutions. Do they remain positive? We have records now for four years following treatment in which the blood of the patient stands up just as positive today as at the time of discharge. Further than that we cannot say.

In connection with Dr. Walt's remarks about prevention and its value I wish to call to your attention to the work of Petruschky begun in 1911 in Hela, a peninsula off Danzig Bay on the Baltic Sea, which is inhabited by fishermen and practically isolated. He instituted the deliberate "assanation" of all families in which there were tuberculous persons, or those who reacted to the tuberculin test. In addition to splendid therapeutic results he succeeded in restoring early cases to health and recently reported that the inhabitants of Hela are now entirely free from tuberculosis. Kutschera in his work in the convents in the Tyrol has demonstrated also that tuberculosis can be stamped out of a community by caring for the infected and immunizing the remainder. Probably to Maragliano belongs the honor of calling to our attention the value of immunization as a prevention of tuberculosis.

In discussing Dr. Hunt's question we will take up that of Dr. Vinsonhaler in regard to the patient with laryngeal tuberculosis. Dr. Vinsonhaler has seen this patient.

He is so far as we have any evidence, clinically well. You asked, did I pronounce that a cured case. You have not heard me pronounce a single case of tuberculosis cured. I can only say that clinical evidence shows these patients doing well to date; clinically, they are well so far as tuberculosis is concerned. We class them up to date as arrested. We have no cases longer than four and one-half years from discharge and have not classed them as cured, regardless of what we might think of them.

Dr. Hunt: May I ask one question? If this case is clinically arrested, leaving out the word 'cured' have you heard of any other cases, or what are the statistics of these laryngeal tubercular cases?

Dr. Shipp: The statistics are very discouraging in those cases secondary to pulmonary involvement. Primary infection of the larynx is rare. We have a few cases reported as primary laryngeal tuberculosis. It is very much like primary cancer of the liver—a disputed entity. Further commenting on Dr. Vinsonhaler's discussion the medical profession has been justified in "smelling a rat," because of the fact that we have worked long and hard with what means like almost an unsolvable problem. Many mistakes have been made, but the climb has been up hill. Somewhere out in the future, I believe, that the persistent workers in this field will carry us to the crest and that we shall solve the question of tuberculosis in prevention and in finding our cases very early. (Applause.)

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Editorials.

VALUABLE PAPER ON CANCER

One of the most interesting, instructive and valuable papers read at the annual meeting of the Arkansas Medical Society was that of Dr. Jabez N. Jackson of Kansas City on "Cancer of the Female Breast." As other authorities have pointed out heretofore, Dr. Jackson stresses the vital importance of early treatment and quotes the statistics of Halstead to show that in cases of cancer of the breast, radically treated at an early period—in this instance so classified by the absence of microscopic involvement of the axillary glands—85 per cent under the three year test were cured. Contrast this with the general average of the same clinic in all cases accepted as operable at all, 42 per cent. Where 85 out of 100 women should have been saved only 42 were. Forty-three died from delay—perhaps neglect. Where is the responsibility?

As Dr. Jackson points out, the very first appearance of a lump or tumor should send the patient promptly to a capable physician for examination. But even then there are physicians without much experience with cancer, who may allay the patient's fears and bid her just wait and see what develops. It cannot be too plainly and emphatically impressed on women patients with swellings or lumps in the breast to consult an experienced surgeon. The same applies to men when moles, warts and other degenerated lesions appear. They may not develop cancer, but also they may. Physicians should be impressed with the terrible responsibility they assume if, not being experienced with the early symptoms of cancer, they recommend the watchful, waiting plan instead of prompt examination and treatment by those skilled in work of this kind.

Dr. Jackson deplors the fact that, in spite of the persistent campaigns, the "Cancer Week" observed, the lectures given and literature sent out, the mortality from cancer shows no diminution. Where gratifying success has attended the campaigns and in work in combatting tuberculosis, hookworm, pellagra, typhoid, diphtheria and other diseases, cancer continues to claim more victims, setting at naught the efforts to fight it. Nor apparently, are the scientists getting any nearer to the cause of cancer. Dr. Jackson bids all to hope in the belief that some day the cause will be discovered beyond doubt and

then results will follow. His paper was published in the June issue of the Journal. Those who did not hear it delivered should read every word of it. Even those who heard it might with profit read it carefully, for it will bear reiteration.

Personal and News Items.

Have you subscribed for Hygeia? \$3.00 a year. A. M. A., Chicago.

Dr. Thad Cothorn and family of Jonesboro recently visited in Brooksville, Florida.

The Medical Society of the Missouri Valley will meet September 18 to 21, at Omaha.

Dr. Morgan Smith and Dr. A. C. Kirby announce their association for the practice of pediatrics, with offices in the Boyle Building, Little Rock.

The State Medical Board of the Arkansas Medical Society have completed a reciprocity agreement with the State Medical Board of Iowa.

Proceedings of the Forty-eighth Annual Session of the Arkansas Medical Society.

(Continued from July issue.)

PUBLIC HEALTH MEETING*

Called to order at 9 p. m. by Chairman C. W. Garrison.

Ladies and Gentlemen: Dr. Rush is unable to be present on account of illness of his wife, but I know that you will be very glad indeed to hear a message from one of our pioneers, Dr. Morgan Smith.

Dr. Morgan Smith: Mr. Chairman, Ladies and Gentlemen: I know that you will feel a keen disappointment when I inform you that the speaker scheduled to deliver the principal address on this occasion is unavoidably prevented from filling the engagement. Dr. Rush, Field Director of the American Society of Cancer Control, has chosen for his topic "The Reward of Courage," the discussion of which by so able and distinguished a speaker would have been not only illuminating but of real public interest. I am not pre-

pared to speak with any knowledge of the subject of cancer control, the subject of the evening but Dr. Gann, Chairman of the State Committee of Cancer Control, is prepared in every way to fill the hour assigned to Dr. Rush, and you will lose nothing by the rearrangement of the program. At the request of the Chairman of this section, I have consented to address you for a few minutes.

It is considered now rather trite to refer to the marvelous progress of medicine in the last two or three decades. It has been told from the rostrum and through the press that nearly all pathological organisms have either been captured or are about to be placed in permanent captivity; that we are familiar with their origin, life history and their machinations; and if we could but assemble the knowledge which has been gained by patient scientific research and translate it into functioning mechanisms, disease would all but take its abode from the earth. What would the profit be to the world if all the causes of diseases and those circumstances and conditions unfavorably affecting the public health were known and no effort made to control them? If science can be made to protect and preserve the most sacred possession—health—why not utilize her forces to that end? Public opinion is the ultimate arbiter in such matters and progress is measured by its pace.

I believe it was Ruskin who said the public seemed to resent any efforts of the profession to protect them from disease as an interference with their inalienable right to die when they pleased. That many scientific medical discoveries have been accepted by the public and employed for the common good is not to be denied. But the thing which cannot be understood is the indifference of the public in defending and supporting the things which have been discovered for their welfare. The fundamental question is, "Why does not the public manifest the same interest in maintaining scientific agencies for protection against disease and death as the medical scientists who sacrifice financial profit and possibly life, in making discoveries for the public good?" This is a question which ought to be answered personally by each of you. If you will consider it seriously, you cannot but be brought to realization of your duties as citizens. I assume that it is quite natural

*Hot Springs, Ark., First Presbyterian Church, Thursday, July 3rd, A. D. 1923, 9:00 o'clock p. m.

that the medical profession should take the lead in health measures, and I admit, also, that the greater burden in maintaining them is upon the public. The medical profession has not set its standards upon an impossible or unrealizable pedestal. They are not as high as the public deserves; they may be higher than the public thinks they should be. It is to bring about better and cleaner understanding of the relations of the public to health and medical educational agencies that such public meetings as this are arranged.

Suppose we meander for a moment into realms of "supposition," and seriously reflect as we wander. Suppose the circulation of the blood had never been discovered? Suppose vaccination against smallpox had not been discovered? Suppose the theory of fermentation upon which the modern practice of the prevention and cure of disease is based, had forever remained locked in the unknown? Suppose the organisms which cause typhoid fever, malaria, diphtheria, yellow fever, syphilis, meningitis, tuberculosis, plague, typhus fever, hookworm disease, had never been discovered? Suppose there were no hospitals to admit the sick, crippled or injured? Suppose there were no organized health agencies standing like a steel wall between the public and disease? Suppose in the late war there had been no organized military medical service? Suppose there were no medical colleges or State Boards of Medical Examiners? It makes one almost shudder to contemplate the state of society under such conditions.

Suppose the public should join hands and hearts with the leaders of the medical profession against interference in legitimate scientific research? In demanding equal qualifications in those who profess to care or treat disease or human disorders? In demanding of legislative bodies the enactment of laws maintaining high standards of medical education and providing adequate appropriations for such purposes. In opposing the granting of special privileges to those who rub-a-bone and those who saw-a-bone? In supporting State Boards of health in their efforts to conserve human life on the largest scale? In demanding the right to be a party of the first part in every movement that tends to prevent disease, alleviate human suffering and make every body a tem-

ple of perfect health. Let us put this picture against the other, and by the co-operation and a perfect understanding of relative duties bring about a kingdom of happiness of health and happiness for those who are to follow in the centuries yet to roll around

If the medical profession by its scientific achievements has been able to discover the cause of many diseases and can point the way to the prevention of most of them, is it not high time that the public—the beneficiaries—should give their aid and co-operation in the fight to hold fast to that which has been achieved? It is too often the ease that public opposition to medical progress in endangered and fostered by medical cults, and especially is this true in a most alarming degree as regards medical legislation. It is here the professional buccaneers shine with dramatic lustre, for the public heralds them as true defenders of individual rights. Insincerity, cunning and duplicity pass for first degree martyrdom, and the regular profession slips another notch in public confidence. This is a sad commentary on our boasted civilization, and the shame is not upon the profession. It may be stated here that it is much easier to enact legislation favorable to quacks and irregulars than measures improving good medical laws now on our statutes.

No doubt many of you recall the recent attempt made in the general assembly to lower the educational standards of the State's Medical School. The plan was to lower the entrance requirements that "the poorest boy in Arkansas could get a medical education." The public was lead to believe that a gigantic medical trust existed in Arkansas, and that the Medical school, the hospitals and this Society were particeps criminis. It was planned to detach the Medical school from the University and conduct it by and through a board of physicians. Happily for the honor of the State, the plan was defeated. But who gave aid and comfort to the proponents of professional retrogression? The irregulars—those who are the special objects of legislative favors and who never fail to exercise their influence when the occasion arises. I doubt if you really appreciate what would be the result if the standards of medical education were lowered in Arkansas. Without going into details, in brief, it would mean an influx of inefficiently trained men to prey upon

the public. The great majority of people are not able to select their physician with discriminating judgment, and as the great mass of the people do not often have a choice of physicians they must employ the one most available. This untrained horde would make their way into the remotest districts of Arkansas, the very locations most in need of highly trained physicians. The lowering of educational standards in Arkansas would discredit the standing and influence of the State Board of Medical Examiners, the agency which stands between the public and the poorly trained physician.

Time was, and it is too painfully recent, when medical schools demanded but little education as a basis for the entrance upon the study of medicine. The public had never concerned itself about such a thing as requiring their physician to possess more than a modicum of education.

But the profession is demanding of those who would engage in the practice of medicine through preliminary training in the pre-medical sciences. It is now universally recognized that the present educational requirements precedent to the study of medicine cannot be reduced. To do so would work an incalculable injury to the public. The School of Medicine of the University of Arkansas enjoys the distinction of being on the list of Class "A" medical schools of this country, and this position has been won because the Trustees have co-operated in every respect with the Council on Medical Education of the American Medical Association. Until the educational status of this state is raised above its present disgracefully low position, and placed in the front rank of medical progress it may be expected that efforts to further disgrace the State from an educational standpoint will be made by those who have no vision and less State pride.

You, ladies and gentlemen, representing an intelligent contingent of this splendid city, ought to make it your business to see that no backward step be taken in any part of our educational system.

I trust that a just and proper sense of your duty will compel you to join hands with this Society in its efforts to maintain medical education on a level with other States.

Dr. C. W. Garrison: I surely will agree that Dr. Smith is an able substitute for Dr.

Rush. I wish to apologize for the committee having assigned to the chairman a topic or subject for the evening. When Mrs. Garrison read the daily paper just before I left home yesterday morning, and saw that I, as chairman of this meeting, had been assigned a subject, she said, "In woman's clubs that is not good taste." I want to assure you that I had nothing to do with it. Neither did I expect to make any remarks, and would not had Dr. Rush been here.

But, gentlemen I am going to take this opportunity to remind you that the State Board of Health is the creation of the Arkansas Medical Society. Therefore, whatever it may accomplish and whatever it may fail to accomplish will reflect upon this Society.

I want to review, just for a few minutes, a few points which, I think will be of interest, especially to the members of the Society. Just ten years ago the State Board of Health was created, receiving an appropriation of \$17,500.00 for the biennium. For the biennium ending June 30, 1925, it will receive approximately \$165,000.00. During the first biennium there was no supplemental appropriations; no federal aid; no voluntary aid. During the next biennium, we can safely assure you that the State will receive not less than \$50,000.00 additional. The State Board of Health is functioning. In addition, through the passage of certain legislation, to-wit: The licensing of cigarette dealers, that it was instrumental in securing; the registration of marriage licenses and divorcees. The State Board of Health has been instrumental in causing to be deposited in the general revenue of this State approximately \$250,000.00 for the biennium. And in addition the State is receiving at least \$50,000.00 in benefits for the same period through biological contracts and otherwise. Therefore, the State Board of Health, which is the center of attack at nearly every session of the legislature, has yielded and is yielding and contributing more to the general revenues of this State every year than it expends, and it is securing this revenue from a source that hurts no one and from which it should be secured. We now have a complete registration of the social unit, viz.: birth, death, marriage and divorce.

Within the past ten years we have just about cut the typhoid rate in half. Dr. Bradford made the statement this morning that he

thought there was a general tendency to emphasize the figures, and make the figures lie. That is not my judgment. You can *make* figures lie, but figures don't lie, unless tampered with.

We have purposely not given great publicity to the vital statistics secured in the office because of their incompleteness and because of the probability of misrepresentation. In my judgment, the greatest danger is not in the unreliability of the figures, but in their misinterpretation. Dr. Gann will refer to statistics which will probably cause him to state that there is a rather rapid increase of cancer in this State. There probably is a slight increase, but, members of the profession, I am inclined to believe that the records which he has, if he should quote them, will show an increase, not especially because of a rapid increase in cancer—though we do know it is on the increase—but because of the improved system of reports. Therefore, I have been conservative, and I insist that we should be careful in the publishing of figures until it is possible to furnish an explanation that will not permit of a misinterpretation.

This typhoid rate has been reduced largely through the sanitary engineering department. Of the eighty-nine public water supplies in this State, they have all been put under complete or partial control. During the past two years there has been expended in this State approximately two million dollars, either under direct order or under the recommendation of the State Board of Health, in the improvement of water systems and sewerage disposal plants. There was ten years ago approximately 8,000 cases, or 800 deaths per annum, judging from the data at our disposal. Now we have approximately 4,000 cases, and 400 deaths.

With reference to small-pox, ten years ago there was reported to the State Board of Health annually by the medical profession of this State from five to seven thousand cases. A survey in ten different counties revealed the fact that there was expended in each of those counties annually from fourteen to sixteen hundred dollars for quarantine alone, and that every county in the State had its small-pox, that a majority of the cases were in rural districts and that schools in every county were either dismissed or demoralized as a result, as evidenced by a statement from the

Superintendent of Public Education. Through the compulsory vaccination law and a fairly well enforced isolation of small-pox and the vaccination of contacts during the year 1921, when there was a most violent epidemic of small-pox all along the Oklahoma, Missouri and Louisiana borders, with the highest death rate known to this section of the country, there were during that year recorded in this State only 417 cases of small-pox with only one death.

As to venereal diseases, many members of the medical profession question whether or not there has been any real accomplishment in the campaign that has been instituted since the beginning of the war. I want to give you just a few figures, and these figures now are taken from the insurance companies, which I regard as absolutely reliable. In the largest insurance companies in this country, for the five-year period previous to the inauguration of this campaign in 1917 there was a greatly increased death rate among policy-holders from syphilis. From 1917 to 1922 there was a gradual descent in the rate, until in 1922 these largest insurance companies gave me their statement that the decrease in the death rate among policy holders from syphilis was 22 per cent.

At the present time Arkansas is spending approximately one million dollars every two years to maintain the State Hospital for Nervous Diseases. Dr. Greene, your esteemed citizen, and the present superintendent of that institution, states that approximately thirty per cent of the inmates are there as the result of syphilis alone. If we can show this decrease in the death rate of policy holders in the insurance companies, why is it not right to presume that in the reasonably near future we can so reduce insanity, as the result of the reduction of this disease alone, as to bring about a marked economic effect on the state and nation?

I regret, to tell you, however, that our death rate from the puerperal state and from infant mortality is rather high. It is much higher than the average for the United States. There is a reason for it, however, and I wish I had time to go into the details; but, if the Arkansas Medical Society will back the program which is now being undertaken by the Federal Government and the States, under

what is known as the Sheppard-Towner Bill, something will be accomplished in that direction. This is a bill backed not only by the club women but by the mothers of this country, and we are trying to work out a sane and common-sense practical program which will reach the rural districts and encompass the mid-wifery problem; but we are not going to get very far unless we can secure the hearty co-operation of the Arkansas Medical Society.

I have every reason to believe that the members of the Society are going to co-operate to the fullest extent. In the four or five counties already surveyed, we couldn't ask for a more hearty support or more thorough co-operation than has been given by the members of the medical profession.

As to diphtheria, we have made little improvement. This Society went on record this morning as endorsing the toxin anti-toxin movement, and with the Shick test and the toxin anti-toxin, backed by the members of this profession, we should reduce diphtheria in a reasonable length of time to an insignificant quantity.

I wish I had time to dwell just a few minutes on registration. But I will pass it simply by saying that it is absolutely essential to have births and deaths completely and accurately registered, and that is a responsibility which rests on the medical profession. I hold, gentlemen, that when the State issues to you and me a license to practice medicine, our responsibility is more than the mere rolling of pills or the use of the knife in surgery; it is in addition an obligation to obey the laws of the State which affect our profession. The law requires that we shall report the births, that we shall sign death certificates and that we shall report the morbidity. I want to appeal to you gentlemen to do so.

I have not been able to make a very deep impression on the medical profession of this State in regard to reporting notifiable diseases. It has been done in other States. I want to say to you that in Mississippi, for example, according to an accurate estimate by Dr. Leathers, the State Health Officer, from 95 to 98 per cent of the physicians report regularly, and he can tell you now accurately what the morbidity rate of a given disease is in Mississippi and how much it has been reduced or how much it has been increased in a given number of years.

In the last six months, three large corporations have come into three different communities of this State with the idea of establishing large industrial plants; and, after having made a survey and gotten in touch with the Chambers of Commerce and gotten down to the real business, in each instance this question has been propounded: "What, in your judgment, will be the ability of the State Board of Health and Arkansas to reduce the incidence of malaria and endemic diseases in this community?" Now, that is a very startling question to our business men. But you will be surprised at the number of letters received in the office from corporations and capitalists requesting information as to the morbidity and the mortality in given communities, because they want to invest, or establish some industrial plant. The country at large is becoming educated, especially the big business interests, and they are now beginning to invest their money where they are sure that they can expect a reasonably low morbidity rate among their employees.

In that connection I want to pay a tribute to our amiable hosts, the doctors of Hot Springs. We had a test made by the Bureau of the Census about two years ago of the principal cities of this State, with the purpose of getting our larger towns and cities into the registration area. Hot Springs at that time showed the best registration of births and deaths of any incorporated town or city in the State. It had 90 per cent; but due to a small technicality, or a lack of completeness of a few certificates, caused Hot Springs to fail to get into the registration area. And, I want to say further that for some time the physicians of Hot Springs have reported their morbidity to my office more regularly, more completely, than in any other incorporated town or city in the State. The altruistic spirit of the Hot Springs physicians is manifested by their action in donating \$1000.00 to malaria control here and in taking the initiative in having the work inaugurated. (Applause.)

Gentlemen, I didn't intend to take this much of your time, but I do want to impress on the members of this Society the very great importance of assisting in this great project of disease prevention. As I said, whatever we may accomplish, or whatever we may fail to accomplish, is your reward or your responsibility.

Dr. Dewell Gann, Jr., Chairman of the Cancer Control Committee for Arkansas and one of our distinguished members, will now present the subject which was to have been presented by Dr. Rush. (Applause.)

Dr. Dewell Gann, Jr.:

Mr. President, Members of the Society, Ladies and Gentlemen: In attempting to present to you the subject of Cancer Control, as representatives of the American Society for the Control of Cancer, we would like to come here and truthfully say to you that the cause of cancer has been discovered and some remedy for its cure produced; but we cannot. We do have a message of hope for you, however, and that is, if recognized in its early stages, cancer is a curable disease. Our mission, therefore, will be to tell you some of the facts about cancer, how it can be recognized in its early stages and possibly something of its proper treatment.

Cancer is not hereditary nor transmissible from one human to another, and in its early stages is not a painful disease. The cancer age is from 40 to 50 years, and, although 96 per cent of all cancer deaths occur after the age of 35, it is by no means rare in the very young, more cancer deaths occurring between the ages of one and five than five and fourteen. It is an astounding fact, but true, that more than 90,000 people in the United States die each year from this disease, and it is increasing on a national average of from two to three per cent per annum. In 1919 there were 324 cancer deaths recorded in the State of Arkansas; in 1920, 381; an increase of approximately 18 per cent, or 15½ per cent above the national average.

Dr. Garrison has just referred to this matter, and, while I quite agree with him, I believe that fifteen and one-half per cent increase cannot be altogether accounted for by better kept statistical returns.

The local Cancer Control Committee was organized in 1920. During that year the committee reached every physician in the State of Arkansas, every nurse and many of the people. It is interesting to note that in 1921 there were 466 cancer deaths and in 1922 467, or one more death in 1922 than in 1921. Now, just how much effect the work of the committee has had to do with this, of course, we cannot say, but it is, at least, encouraging. From these figures you can readily see that

cancer is one of the leading causes of death, and ranks with pneumonia, tuberculosis, heart and kidney disease, and it is rather strange to say, but it is the only one of the leading causes of death that is showing a decided increase.

I think there is a more or less general belief among the laity that tumors are cancer. This is not true. The word "tumor" is derived from the Latin "*tumre*," meaning swelling. We have numerous kinds of swellings. Swellings of an inflammatory nature, characterized by pain, tenderness, heat, etc.; swellings the result of an accumulation and retention of normal secretions, producing conditions known as cysts, of which a wen is an example; and normal physiological swellings, known to us as hypertrophy, such as we see in the blacksmith's arm. Therefore, we might define a tumor as a growth or atypical new formation, not the result of any of these conditions. Tumors may be benign or malignant. Benign tumors are harmless, if they are not situated in such a position as to interfere with normal physiological functions of the body. Malignant tumors, or cancers, are harmful in that they will destroy their host. This definition of tumors is based upon the observation that some tumors will destroy their host, while others show or display no such destructive propensities. Cancers are of two varieties, called sarcoma and carcinoma. Sarcomata are cancers which develop from the connective tissues of the body, and are transmitted from one place to another by the blood stream. One of the most prominent physicians that the State has ever had died as the result of a sarcoma of the great toe, which was transmitted by the blood stream through the body to the brain, and he died as the result of cancer of the brain, which originated in the toe, and after the toe was removed never recurred at that point. The carcinomata are cancers developing from epithelial and glandular tissue, and are transmitted from one portion of the body to another by the lymph stream.

For example, this afternoon out in front of this building I saw an elderly gentleman, who had cancer of the tongue, which had existed for six months, and the cancer cells had gone into the glands of the neck, and it is in these cases that we have so much difficulty in establishing a cure.

We don't know the cause of cancer, but we do know a great deal about its causative factors. We know that more men than women have lip, tongue and throat cancer because more men than women smoke, and smoking is a source of chronic irritation. In China more men than women have cancers of the esophagus or gullet. The men eat at the first table, when the rice is hot; the women at the second table when the rice is cool. When the teeth are good we seldom see cancers of the mouth. Women who have not borne children seldom have cancers of the womb, as compared to mothers; thus we have come to believe that chronic irritation is one of the most potent factors in the development of this disease.

Now, the question probably arises in your mind as to what is a cancer. Before you can understand the answer, you must know something of the construction of the human being. Our bodies are composed of cells held together by a substance called stroma. Think for a moment of a brick wall. Let the bricks represent the cells and the substance holding them together, the stroma, and you have a broad conception of the construction of the human body. Now, a cancer is nothing more than a lawless growth of these cells. I sometimes compare this lawless growth of cells to a mob, for they bear the same relationship to the body that a mob bears to the people. Normally, we are law-abiding, God-fearing citizens; but when stimulated by an act of violence on the part of some individual, we sometimes group ourselves together for the purpose of destruction. And so, when stimulated by a source of chronic irritation, our cells sometimes become riotous and grow lawless in manner. The time to prevent mob violence is before its members leave their meeting-place. The time to cure cancer is while it is still a local growth. Cancers can often be prevented by a removal of sources of chronic irritation, such as bad teeth, the repair of lacerations following child-birth, etc. And even after a cancer has reached the point that it is easily recognizable by the physician, it is still curable, if properly dealt with.

Now these facts are well known to the medical profession, and for this reason, in 1913, a group of public-spirited individuals organized the American Society for the Control of

Cancer, it being the purpose of this organization to teach the people the importance of the early recognition and proper treatment of this disease; for in the early recognition lies the hope of cure.

A committee has been organized in this State, composed of His Excellency, the Governor, and the president or the leading member of the more prominent State organizations, including the Federated Women's Clubs, Farmers' Union, State Bar Association, etc.

The State has been arbitrarily divided into districts, and in each district some one has been appointed as a district supervisor. In each district there are from two to three or four counties, and at this time more than 50 per cent of the counties in the State of Arkansas have local cancer control committees. We are now planning to put into service a field director, and I hope that we shall soon be able to do this. I would like to tell you more of the plans of this committee, but time will not permit and I will launch rather abruptly into the subject about which you are anxious to learn.

There are four principal locations of cancers. We will take up, first, the skin. Early signs of cancer of the skin: Any sore of the skin that does not heal readily, any sore that scabs and rescabs over a long period of time; any wart, corn or mole that constantly becomes irritated and takes on growth, is potentially a cancer and should be so considered until it is definitely proven otherwise. Lumps, especially in the breast, should be dealt with immediately upon their discovery. An individual adopting a "watchful waiting" plan in the treatment of malignant disease is gambling with his own life. Any discharge that becomes more foul, more profuse or more irritating should take the patient to the physician. Any bleeding, especially between the "periods," or bleeding or spotting after the "period," is especially significant and should not be overlooked. Chronic indigestion or loss of weight is significant of some trouble in the gastro-intestinal tract, in the stomach or bowels and should take the patient to the physician, because almost 50 per cent of all cancer deaths are the result of cancer within the abdominal cavity.

Now, there are a few more things that I might say to you but the time is well past.

I have a few books on "What We Know About Cancer," a hand-book for the medical profession. We expected Dr. Rush here to-night with a cancer motion picture, called "The Reward of Courage," which presents a case of cancer of the breast in a very pleasing manner. We also expected him to bring a little hand-book published by the American Society for the Control of Cancer for laymen, called "What Everyone Should Know About Cancer." But we didn't get them. But there are a few pamphlets back there you may take, if you like. (Applause.)

Dr. Garrison: Dr. Gann has given us a very clear, interesting and forceful discussion of this very important subject, and I feel quite sure that everyone here will assist him and his committee in getting the information to the laity, and try to persuade them to consult their physicians early, and in that way reduce the incidence of cancer.

Adjourned at 10 p. m.

County Societies.

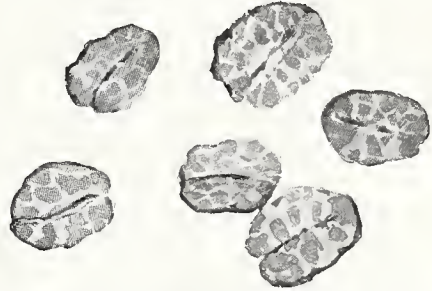
BENTON COUNTY.

(Reported by C. A. Rice, Sec.)

The Benton County Medical Society met in regular session, August 14, at Rogers. Present: Drs. T. E. Hodges, W. A. McHenry, R. R. McHenry; Thompson; Harrison; Perkins; Doty; Moore; Clegg; Koobs; C. A. Rice. Dr. Cornelius of Siloam Springs was a visitor.

A splendid meeting was had; two papers presented and the discussion general. A good clinic was also enjoyed.

"The continuous education of the practicing physician is the duty of organized medicine. Yet it is equally true, that it is the duty of the practicing physician to avail himself of every opportunity offered him. We must be at all times prepared to do our part. We must keep the faith."—Charles A. Gordon in L. I. Medical Journal.



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L. D. REAGAN
Internal Medicine

The Management of an Infant's Diet

Diarrhea

The importance of nourishment in intestinal disturbances that are so common during the warm weather is now recognized by physicians, and it is also appreciated that the nutrition furnished must be somewhat different than the milk modification usually supplied to the normal infant.

Food elements that seem to be particularly well adapted, mixtures that are suitable to meet the usual conditions, and the general management of the diet, are described in our pamphlet—"The Feeding of Infants in Diarrhea"—a copy of which will be sent to any physician who desires to become familiar with a rational procedure in summer diarrhea.

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Original Articles.

CHRONIC PROSTATITIS*.

H. Fay H. Jones, M. D., Little Rock.

Chronic prostatitis is the most common and most difficult condition to deal with in the whole field of urology. In point of numbers of patients, chronic prostatitis is to the urologist what appendicitis is to the general surgeon. Infection of the prostate follows in at least 85 per cent of cases of urethritis, and while the urethritis is usually vigorously treated until the discharge stops, little or no attention is paid to the coincident infection of the prostate.

Infection of the prostate follows an infection of the urethra because of the very intimate anatomical relationship that exists between the two structures. The prostatic portion of the urethra, fusiform in outline when dilated, extends from the neck of the bladder for a distance of $1\frac{1}{2}$ inches through the interior of the prostate gland, lying nearer its anterior than posterior surfaces. In transverse section, it is half-moon shaped in outline, the concavity in its posterior portion being produced by the projection forward of the urethral crest, or the verumontanum. At the apex of the urethral crest, one on each side, open the ejaculatory ducts, with the utriculus prostaticus or sinus pocularis between them. Into the horns of the crescent on both sides, over a distance of three-fourths of an inch, empty the ducts from the prostate gland, from twenty to thirty in number.

The openings from the prostatic ducts are almost microscopic in size, each opening leading into a slender tubular duct. The duct extends into the interior of the gland, where it

becomes markedly convoluted, possessing numerous minute pockets or soccules extending out from it in all directions, each duct draining a unit of the gland known as a lobule. The mass of the prostate exhibits an almost unbelievable complexity.

The ejaculatory ducts extend backward and upward through the posterior part of the prostate gland to its posterior surface, where each is formed by the union of the duct from the seminal vesicles and vas deferens on the same side. The seminal vesicles are a pair of hollow, sacculated structures lying between the bladder and rectum.

Because of the intimate relationship of the various structures described above, an infection, reaching the prostatic urethra by direct expansion may pass into the prostatic ducts involving a part or all of the prostate gland, it may pass through the ejaculatory ducts to the seminal vesicles and even through the entire length of the vas deferens to the epididymus.

Almost all cases of prostatitis follow a gonorrheal urethritis. The extension of the infection into the prostate may produce an acute prostatitis; but the infection may be sub-acute or become chronic without a noticeable acute stage. In a small percentage of all cases of prostatitis the infection may be hematogenous in origin and not subsequent to a urethritis. These cases follow an infection in a primary focus elsewhere in the body, which is usually the teeth or tonsils, and are perhaps more numerous than suspected. The prostate may also be the seat of a syphilitic or tuberculous infection.

The symptoms of prostatitis are frequent urination of small amounts of cloudy urine, a griping sensation in the neck of the bladder just after urination, a relative incontinence of urine, a drop of muco-pus appearing at the meatus in the morning, an aching pain in the

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

sacral and lower lumbar regions and the malaise and loss of energy, such as accompanies a similar infection anywhere.

The diagnosis of prostatitis is not always as easy as it might seem. The symptoms mentioned, especially when accompanied with a history of acute gonorrhea from weeks to years before, warrant an investigation of the prostate. Digital examination may show an enlarged, hard, tender gland. The enlargement may be unilateral or bilateral, the consistency varies, and pain on pressure is of all degrees, from a slight soreness to an exquisite tenderness. Of extreme importance is a careful microscopic examination of the expressed fluid for the presence of pus and infecting bacteria; because the gland may appear practically normal to digital examination and yet the secretion be full of pus.

By massage of the prostate gland, a composite fluid is obtained consisting also of material from the seminal vesicles, ejaculatory ducts and Cowper's glands. The presence of pus either with or without the identification of an infecting organism indicates a prostatitis, although a Cowperitis and vesiculitis may also be present.

Prostatitis may be further complicated by an infection of the bladder, or pelvis of the kidney. The prostate may be the primary focus of infection in various types of arthritis and neuritis and it has been known to be followed by an endocarditis. In neuritis and rheumatism in adult males, the prostate is too often overlooked in searching for a source of primary infection. Prostatitis is frequently accompanied or followed by an impotence. Some urologists state that vesiculitis always accompanies a prostatitis, which may or may not be true.

The prognosis in these cases must be guarded because of the inaccessible location of the infection. A great majority of patients can be cured if the treatment as outlined is carried out; but they must be especially warned not to become discouraged and stop treatment before their discharge.

The treatment of chronic prostatitis is a large subject itself. However, I will attempt to take it up rather fully.

Prostatic massage, the most important and most used of any therapeutic measure, came into popular use in 1894. Since that time the method of massage has passed through states of experimentation. When first adopt-

ed the procedure was to massage around the prostate with a circular, rotary motion of the forefinger, but not to massage directly over the gland.

Another method is to knead the prostate between the thumb placed externally on the perineum and the index finger supporting the gland from within the rectum. The technique most generally used is as follows: the patient assumes the knee-elbow position, the protected index finger is inserted within the rectum, and gentle to firm pressure made first over one lobe, then over the other, with a downward stroking movement directed toward the opening of the prostatic ducts in the urethra. Massage should continue from one to three minutes. The type of prostate, the type of patient, and the severity of the infection, all enter into the question of the character and frequency of the massage. One patient might bear a firm massage without discomfort, and another complain of pain and have marked showing of blood from the urethra. Mild massage may be repeated twice or even three times a week. Vigorous massage not more often than once a week. Occasionally a patient will faint from the psychic effect or automatic nervous reaction.

Instrumental massage of the prostate and seminal vesicles is not good practice, for the manipulation and pressure are not accurately guided by the sense of touch. Massage may or may not include stripping the seminal vesicles, which is done by some urologists only when there is a well-defined case of seminal vesiculitis. Personally, I massage the seminal vesicles almost routinely. Schmidt says that the prompt and regular removal of accumulated secretion is desirable and Keyes states that the prostatic massage is an unphysiologic attempt to empty the prostate which is often not nearly so beneficial as regular sexual intercourse would be if permitted.

Conditions of the rectum which delay and interfere with massage of the prostate are painful or bleeding hemorrhoids, anal fissures, proctitis, and constipation.

Heat to the prostatic region is one of the stand-bys. Nearly every conceivable form has been tried. Sitz baths, hot irrigation, and application of heat through the rectum. The psychrophore permits of more prolonged application of heat without disturb-

ance to the bowels. The electrically heated sound controlled by a thermostat is the best, in my opinion, but works better in acute prostatitis than in the chronic form.

Irrigation of the urethra to free it of pus expressed from the prostate is routinely practiced. The irrigating material is a weak solution of acriflavine or mercurochrome. This is introduced into the bladder until it is full, the prostate is massaged, then the emptying of the bladder by urination cleanses the urethra thoroughly. Occasionally, instead of irrigating with acriflavine or mercurochrome, a one per cent mercurochrome solution or 10 per cent neo-silvol solution is introduced into the prostatic urethra with a deep urethral syringe. Direct application of remedies, particularly 5 to 25 per cent solution of silver nitrate, through the endoscope and urethroscope are indispensable in most cases.

Dilation of the urethra as a whole, with sounds, or of the prostatic portion with Kohlman's dilator, to express the accumulated secretion from the pockets and ducts of the urethra, followed by instillation or irrigation, is very essential.

Vasotomy is specially indicated, when there is an accompanying vesiculitis. If the prostate is cleared of infection, unless the vesiculitis is also cured, nothing has been accomplished, for the pus dripping down from the vesicles soon reinfect the prostate. In persistent or recurrent prostatitis, I think vasotomy should be done in order to get bactericidal solution 1% mercurochrome, or 20% argyrol directly into the vesicles to clear them of infection. It is a simple operation and if done properly, causes no marked distress; in fact, some patients do not have to leave their work. There is some danger in this operation of damaging the vas to the extent of causing a blocking and sterility. Vaccines have been of very little service in my hands. Probably, in selected cases they are of value, especially if complicated by arthritis.

Nelken says regardless of the kind of treatment employed or length of time treatment is persisted in, it is extremely rare to find a prostate once a seat of pus infection that eventually is entirely free from pus.

The patient's general care is of importance. He should eat and sleep regularly. The diet should consist of well-balanced ra-

tions. Abstinence from excessive exercise and total sexual continence are indicated; the latter, however, is rarely done. Internal medication consists chiefly in administration of drugs for thorough elimination, a condition so often overlooked.

All that can be done to increase the patient's physical well-being and power of resistance increases the activity of the leucocytes, upon which, after all is said and done, the physician must chiefly depend for the recovery of his patients.

The question of discharging a patient as cured is no easy task. No patient is discharged until there have been at least four negative laboratory tests taken at weekly intervals. Some patients return for tests after three or four months' rest. Even when no gonococci are found and there are still as many as ten to twelve leucocytes to the field, the patient is kept under observation. Many cases, if left alone at this state will clear up themselves, because of the immunity the patient has built up against the infection.

Chronic prostatitis is a rather common and serious condition. Too often patients with a gonorrheal urethritis are pronounced cured by their physician as soon as the purulent discharge has ceased. At other times the patient himself decides that he has recovered. In both instances, infection of the prostate may be present, not recognized, and remain untreated. It is probable that to this fact can be traced many of the infections in the wives of these patients. Even when present and recognized as such, because of the long time required for cure, the patient may become discouraged and discontinue treatment. All patients with urethritis should have their prostate examined before they are pronounced cured, and in cases of neuritis, arthritis, myositis, infection of the eye, or any other condition in which an unknown focus of infection is the cause, the prostate should be kept in mind as its possible location.

DISCUSSION

Dr. H. King Wade, of Hot Springs: It is admitted that one-third of the men over sixty years of age have enlargement of the prostate. It is admitted, too, that one out of every twenty of these men develop urinary symptoms. That is because of a certain degree of prostatitis that develops. It is thought that after a man reaches the age of seventy without developing urinary symptoms from the prostatitis, he will proba-

bly escape. However, we have seen men much over that age subject to urinary symptoms from prostatic trouble. Prostatitis, as a rule, of the chronic type, develops about the age of fifty. Cases have been reported at the age of twenty-seven, and in a child of five, and in an infant of thirteen months. It is thought that the white race is more predisposed to prostatitis than the negro race. That in a way eliminates the theory of sexual over-indulgence as being one of the causes of chronic prostatitis. Prostatic trouble is often found in India and Turkey, where the sexual life is taken up early and continued late. It is thought that irritation might have something to do with the production of chronic prostatitis, such as horse-back riding, bicycle-riding, etc. Others advance the theory that a sedentary life and irregular habits, which produce pelvic congestion, might have a tendency towards chronic prostatitis. A gouty, rheumatic individual, with hepatic stagnation and subject to hemorrhoids is also likely to develop chronic prostatitis.

Going back to over-indulgence sexually, which is rated as about the second greatest cause of chronic prostatitis, that is borne out by the fact that in the young masturbator we will often find an enlarged, tender prostate, and that in a way substantiates the theory of sexual over-indulgence.

Arteriosclerosis, cardiac insufficiency and hepatic cirrhosis are other conditions that predispose to develop it. In chronic prostatitis, carcinoma of the prostate might be brought in, which, of course, is a surgical condition and must be treated as such. Infection is probably at the head of the list as the cause of prostatitis. Every case of posterior urethritis practically is followed by some degree of prostatitis.

The diagnosis of prostatitis, as Dr. Jones has said, is by an examination of the expressed fluid and the finding of pus and the organism. One examination of the prostate would be insufficient to make a diagnosis. At times you will have miliary abscesses of the prostate, and the ducts are closed and, when massaged, might not empty these abscesses into the urethra so that you might obtain pus in the specimen. It is advisable to make at least three or four examinations unless your first examination shows you sufficient pus to make your diagnosis. It would be hard, in my opinion, to differentiate between a prostatitis and a vesiculitis. If you massaged the prostate and vesicles, it would be hard to tell whether you are getting your pus from the prostate or the vesicles.

Complications which might arise from a prostatitis are: a chronic cystitis, as Dr. Jones brought out, an infection of the kidney which is due to retention of urine, the urine becoming infected and you get back pressure and, as a sequela, infection of your kidney. This is rarely ever gonorrheal in origin. It is usually a mixed infection, or colon bacilli. Cases of gonorrheal infection, however, have been reported. I want to emphasize a few points in Dr. Jones' paper in the treatment of prostatitis. I think in these cases dilation of the urethra is very important.

You can hardly get away from the use of the endoscope in the treatment of the posterior urethra. In fact, the whole urethra must be treated, but a touching of the posterior urethra with 25 per cent silver nitrate is very good practice.

We recommend in all cases of prostatitis due to infection the vasotomy as a part of the treat-

ment, because of the uncertainty of differentiating between prostatitis and vesiculitis and because the two conditions usually coexist.

Dr. W. T. Wootton, of Hot Springs: Dr. Jones made the statement that these prostates are infected from venereal disease more than are suspected. I recently made an analysis of 350 cases of infected prostates, the results of which were presented to the Tri-State in Memphis, showing that 61 per cent of the 350 cases were non-venereal, and 33 per cent of which had never had a venereal disease. The others for periods of from fifteen to twenty years before had gonorrhea; but there was no evidence of it at the time that the present infection was discovered.

Another thing that impressed me as an internist looking for the focus of infection, because these patients didn't come for prostatitis, but for something they called rheumatism—they either had an arthritis or neuritis. These patients, if they gave a recent history of gonorrhea, they were examined. If they gave no history of gonorrhea, the prostate was never examined by the family physician and was not suspected as the focus of infection. With the percentage as high as 61, it looks to me like it should be taken more seriously.

Dr. Jones stated that he thought these cases should not be massaged oftener than three times a week. We have never had any difficulty with these cases, which are all chronic, in giving them a mild massage daily; at least, six a week; and our reason for doing so is that the prostate accumulates considerable mucous in between treatments. This to a large extent prevents the expression of the debris, pus, etc.; therefore, you get a large quantity of mucous without getting what you are after. More frequent massaging gets less mucous and more pus.

Dr. C. E. Benefield, of Conway: Listening to this paper caused me to look back upon the canvas of my past experience in dealing with these cases with quite unfond recollections. Unfortunately for me, I have had many of these cases to deal with. I say it was unfortunate, and I think it is to any man who has had many of these cases of prostatitis, as the results is often unsatisfactory. The men who have preceded me have doubtless observed many cases of prostatitis; but, as I have observed it in my experience, as Dr. Jones stated in his essay, the great percentage of them have followed gonorrhea. The symptoms in my experience have been largely that of obstruction and stricture is a very common cause, in my experience with prostatitis. Another cause that I have found very common is hemorrhoids, especially internal hemorrhoids.

I remember Dr. Jones' father and I were partners a number of years, and with the massage method, we used some of the solutions that the doctor mentioned. We used, however, more commonly a 2 per cent solution of permanganate of potash, and we filled the bladder of our patient before massaging. I didn't do the massage act much myself, because my hand it not adaptable to these cases. Dr. Jones had an enviable index finger for this work; and I turned the massaging of those cases over to Dr. Jones, because he was an artist at it, and we got splendid results from that milking massage method.

We used the return flow catheter in washing the bladder out after this. We usually left a 30, and sometimes a 40 per cent solution of argyrol in the bladder after our massage act; and we

thought we got very gratifying results from this method of treatment.

In our hemorrhoid experience, we found in those cases that had hemorrhoids that, after a hemorrhoidectomy, we got better results than from any other method we ever used in dealing with these cases of prostatitis.

Just three or four days ago I had a case come to me from the country that had been sound-treated for quite a while, and he had a very tight stricture. In the sound-treatment there was produced quite a hemorrhage in the bladder. I don't think any criticism could have been made against the previous doctor, for the reason that I came very near not getting into the bladder when he came to me from the country. He had not passed a drop of urine for about sixty hours. He was just ready to burst. When I got into his bladder, I found it absolutely full of clotted blood. I put in about an hour washing that bladder, and one mass of clotted blood after another obstructed my catheter. I drew it out until finally I guess we got at least a pint of clotted blood from his bladder. The prostate was so large and his urethra so completely obstructed that I didn't feel like treating that case, so I referred him to a hospital at Little Rock, because it was a hospital case. I was called to see him three or four times at night, and he was just dying with pain, and had a uremic poisoning quite pronounced when I first saw him.

I think a clean prostatectomy is the only thing to do in all such cases as this.

Dr. Jones, in response: I enjoyed the discussion very much. In response to Dr. Wootton's statement as to the frequency of massaging, it depends on the type of the infection of the prostate. He massages more frequently than I do; especially in gonorrheal prostatitis.

If gonorrhea is present, it is my belief that massaging oftener than every third or fourth day will be harmful, because of the liability of the patient to develop an epididymitis. In a hematogenous type of infection frequent massage of the prostate does no harm.

HERNIA OF SMALL INTESTINE THROUGH THE UTERUS*.

L. Kirby, M. D., Harrison

REPORT OF CASE.

S. W. N., Woman, aged 38, married, mother of six children including a pair of twins. Last child was born February 10, 1920. No abortion since last child was born. On September 26, 1922, Dr. T. G. Cox of Omaha, Ark., from whom I obtained most of the data with regard to the case, was called to see this woman. She informed him that during the two months previous she had only a slight menstrual flow once, about September 12. She was vomiting and had vomited for some

time previous to his visit. Her bowels had moved two days before he saw her. The doctor did not inspect the vomited matter. The woman was having irregular labor pains and had a slight blood-stained vaginal flow. The womb was not dilated. The doctor waited on the progress of labor for about ten hours, when he decided he could not prevent an abortion and used a dilator until he could introduce his index finger into the uterus, when he felt a mass slightly elastic like a bag of waters. By manipulating he finally worked the mass down into the womb and passed his finger through a loop in the mass. When he pulled the mass down into the vagina, on inspection, found the mass dark colored and congested, its walls thicker than a bag of waters. Concluding the loop might be intestine, the doctor used a solution of Creoline locally on gauze to disinfect. He kept the woman quiet and awaited developments. At 10 a. m., September 27, I saw the woman in consultation. The patient was fairly well nourished, nauseated, not much pains. There was a looped mass protruding from the cervix uteri down into the vagina, almost black in color, inelastic. I could not find any mesentery in the loop. By manipulating the mass with my fingers, one surface would glide over the other, indicating that it was hollow. There were no blood vessels visible. In order to confirm my views that the mass was intestine, I made a small opening in it, expecting to find feces or fecal odor, but found neither. The mass being gangrenous and there being no mesentery, I twisted it off near the fundus uteri, then introduced my finger into the uterus, found no indication of recent pregnancy, lightly packed the uterus with gauze saturated with fluid benzoin compound. The packing not causing any untoward symptoms, Dr. Cox did not remove it until the third day. When the gauze was removed, feces at once began to pass out of the os uteri into and out through the vagina. The feces were thin.

Mrs. N. gradually became weaker, while the constant discharge of feces per vagina made her miserable, there being no fecal discharge per anus. It being evident that the woman would die from inanition, I was called the second time to see her on October 17, 1922. Dr. Cox administered chloroform, Dr. F. B. Kirby, my partner, assisting me, and we opened the abdomen in the mid line.

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

We found the small intestines and omentum bound together, lying over uterus and attached to right ovary and fallopian tube. Some of the adhesions were so firm they had to be cut and tied off. The small intestines were attached in a V shape to the upper and back part of the fundus uteri. The end of the intestines coming from the right side was about normal, while that portion making the left side of the V was empty and felt fibrous. The uterus was slightly enlarged, otherwise normal. We clamped each part of the intestines forming the V about three inches from the attachment to the uterus, cut the apex of the V loose from uterus, disinfected the surfaces with five per cent alcoholic solution of thymol. The opening in the uterus, after cleansing, etc., was transverse about one-half an inch long, while antero-posteriorly it was about one-fourth of an inch. The walls of the uterus in cut surface were about normal in appearance and thickness. We closed the opening in the womb with two rows of sutures, then excised about one-half inch of each end of the clamped intestine and performed an end-to-end intestinal anastomosis with a Murphy button and closed the abdomen.

Dr. Cox used some vaginal antiseptic douches, also used normal salt injections in the patient's rectum once a day for eight days after the operation. On the eighth day she had a small bowel movement, then used rectal injections of liquid petrolatum, also gave some by mouth. On the twelfth day after the enterorrhaphy was performed the patient passed the Murphy button from the bowels at the same time she had a good bowel movement. The patient did not have a bowel movement per anus from September 24 to October 24, 1922. The feces passed through the uterus from September 30 to October 17, 1922. The patient did not vomit after the gauze tampon was removed from the uterus when feces begun to pass through the uterus. She never had any fever at any time. On April 20, 1923, the patient said she was in the very best of health.

DISCUSSION

Dr. E. E. Barlow, of Dermott: The history of that case showed that this woman had had an abortion. I don't know what the doctor thinks about it, but I am going to venture a guess. That woman had produced an abortion or miscarriage quite a long time before that and in so doing had certainly punctured the uterus. As the intes-

tines are always looking for a hole to get out, they certainly started out through that puncture. I think Dr. Kirby is to be congratulated for the ultimate or end result of this case.

Dr. T. S. Hare, of Crawfordsville: Dr. Kirby's case brings to mind a case that I had when I was a student practicing between terms. I was called at one time to see a negro girl, 13 years of age, one morning about 9 o'clock, to remove a retained placenta. When I got there I found the placenta in the vagina, and when I removed the placenta I found the whole uterus filled with blood. This was six hours after the baby was born. She had an unusually large baby. The whole uterus was full of clotted blood. On removing the blood with the hand, I got hold of the small intestine. The reason this girl didn't die, I don't know. I guess it was because she didn't have a doctor sooner. I guess Nature had formed the clot and saved her life. I was the only doctor in attendance. I gave the chloroform. I think the best thing for this girl is that she didn't have a surgeon. Nature relieved her better.

Dr. C. E. Benefield, of Conway: As to the etiology, I would simply like to know from the essayist whether or not this patient had been the victim of repeated curetages.

Dr. Kirby, in response: I don't know what caused it. She had not been curetted. The doctor told me he had never treated her any before this. He had been present with her in her deliveries, and he told me that he had given her no treatment; that he had not been in the habit of treating her in any way. Of course, you and I can surmise as much as we please. I tried to find out everything that I could about it in order to know the cause, but never did find out. She had some lady friends, neighbors, and two or three of them told Dr. Cox that she said, "We are too poor to have any more children, and I am never going to have any more." Now, that would make it appear that she had used some kind of instrument that brought about this condition. That is just a surmise on my part. Dr. Barlow suggests the idea that there had been some injury inflicted before that. It is very evident from the fact that the adhesions were so very strong that prior to this time there had been some injury inflicted, which caused adhesions of the intestines to the Fallopian tubes and ovary and the omentum. Those adhesions were stronger than would have occurred in the short time she was under the treatment of Dr. Cox and myself. There was a prior injury at some time, as Dr. Barlow suggested. I don't know what brought it about.

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Editorials.

PUBLIC WELFARE VS. POLITICS.

Recently we have had a revival of the controversy anent the management of the State Hospital for the Treatment of Nervous Diseases. The controversy is directly due to the unfortunate error of the last Legislature in getting the hospital management back into politics by abolishing the former law governing the appointing of a superintendent, and fixing a regular term of four years' service after appointment.

It is unfortunate that any eleemosynary institution, board of education, or any other institution affecting the public welfare, should become a political football. The best results uever have been, and never will be, obtained under such circumstances. Efficiency and experience are the factors most desirable. A superintendent who has made good is worth more to the State at the end of each year than he was the year before—because he continues to grow in knowledge by experience. Wherefore to limit incumbency by setting a fixed term is altogether opposed to all ideas of efficiency.

The Journal has no opinion to venture concerning the merits or demerits of the present superintendent, nor of any other applicant for the position of superintendent. That is not the issue. It is a matter of principle and the best interests of the public. The public health is the one most important thing of all—although it is unfortunately true that it is difficult to make our law makers take this view. A big railroad company does not select a superintendent for a term of two years or four years, or for any other fixed term. The company knows that an efficient superintendent becomes more efficient with more experience, and he remains as long as he obtains results. This is true of big business and successful business always and everywhere. It is common sense. Could any great enterprise hope to succeed if an efficient superintendent should be limited to a certain brief term of office and then superseded? Would there be any incentive for him to do his utmost in that term? Can any man give the best that is in him under such conditions? Even granted that under a fixed term law an incumbent may be re-elected—he also knows that politics rather than the public welfare is most likely to affect the

succession. Therefore, if the superintendent be a politician, and a wise politician, he will seek to curry favor with the political machine that is in the saddle. That condition is not desirable. The superintendent of the State Hospital, and of every other eleemosynary institution, should be absolutely untrammelled. He cannot be under political rule. If he has guards or nurses or other subordinates to appoint he is mighty apt to heed the recommendations of whoever may be in a position to suggest that he be re-appointed at the end of his term. This is human nature and efficiency in the selection of his staff will probably be relegated.

An efficient superintendent should not be confronted with possible loss of his position with every change of administration. He should not be limited to any fixed term. He should be retained in office just as long as he remains efficient, utterly regardless of politics. The next Legislature should correct the mistake the last one made.

“HYGEIA” DOING A GREAT WORK.

In an issue of the Journal several months ago we had a good word to say concerning a Journal of Individual and Community Health, “HYGEIA,” published by the American Medical Association for circulation among the laity and with the object of educating the public in some of the easily understandable fundamentals of medicine.

We pointed out the excellent work and aims of the new venture. It is a health magazine, with a subscription price of three dollars a year. It is not the custom of the Arkansas Medical Society Journal to “boost” magazines, medical or otherwise, merely to boost them. This is not a money-making enterprise. It is engaged in a great work in the interest of public health. Its object is to give authentic, unbiased, reliable information to the public for the benefit of the public. It is health propaganda pure and simple. It does not exist for any selfish or self-seeking purpose. The only hope for the elimination of communicable diseases or the use of useless and fraudulent remedies is in education of the public.

Incidentally “Hygeia” is calculated to raise the profession of medicine in the minds of the people and endow them with greater respect for its practitioners.

As the prospectus says truly: “Hygeia is more than a magazine. It is a voice of the great health movement so rapidly developing in industries, schools, churches, civic organizations and in the minds of individuals.” For the rest of the magazine, not only surprising in interest to the physician, but to the intelligent layman. It is splendidly illustrated and is a publication that, touching on an infinite variety of subjects of interest to young and old alike, may be enjoyed by every member of the family. Not only should every physician subscribe for his own benefit, but should subscribe for an extra copy to be placed in his reception room, for the entertainment, and incidentally for the enlightenment, of waiting patients.

Dr. T. B. Bradford of Brinkley, an active member of the Arkansas Medical Society, will from time to time visit every county in the State in behalf of “Hygeia,” and our members are urged not only to subscribe for it, but to aid Dr. Bradford, to the best of their ability, in obtaining other subscribers. Meanwhile, if you desire to subscribe, fill out and mail the coupon printed below:

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Editorial Clippings.

THE NEED OF MEDICAL ETHICS.

The American Medical Association, in an endeavor to learn how it can be of more service to its members and fellows, sent out numerous queries to the various component societies and to many individual members thereof. The answers are entertaining, but a striking feature of practically all of the answers is the unanimity of opinion that doctors should put forth more effort to stand together. Loyalty to each other seems to be strangely lacking in the medical profession. As one cor-

respondent says, "over fifty per cent of the malpractice suits are due to jealousies and factional fights among members of the profession. Probably forty-five per cent of the remainder of the suits are due to loose talk and criticism of treatment given patients, of which the physician offering the criticism has no knowledge whatever aside from hearsay."

It is strange, indeed, how gleefully and without justifiable cause except unwarranted jealousy, any number of physicians will look upon professional troubles of a fellow practitioner, and how often a physician's reputation with the public is unjustifiably injured by the criticism of confreres or, perhaps more often, by the look, the gesture, or the mere silence which speaks louder than words. As one doctor says who experienced the taste of what professional jealousies can accomplish, "Brotherly love and professional ethics? There ain't no such animals!" We do a lot of talking about sticking together, but we get little further than talking. Why not try to turn the current by giving more teaching on ethics to our medical students, and more often disciplining the members of our medical societies. Incidentally, perhaps, we ought to say that what we need is merely common honesty and a fair deal for each of our confreres. That would be ethics enough.—*Jour. Indiana State Med. Assoc.*

Personal and News Items.

Dr. and Mrs. Dewell Gann, Jr., Little Rock, visited in New Orleans this month.

"Happiness is the art of making what we get fit our desires."

The Canadian government has awarded Dr. F. G. Banting a life annuity of \$7,500.00 as the discoverer of insulin.

Drs. W. E. Jones and H. Fay H. Jones have opened offices in the Hall Building. Practice limited to G. U.

Dr. E. H. Wilkes of Little Rock has returned from New York, where he attended the post-graduate medical schools and hospitals.

Drs. J. B. and S. R. Crawford have moved their offices to 514-515-516 Donaghey Build-

ing. Their practice is limited to eye, ear, nose and throat.

Dr. Paul L. Mahoney, Little Rock, has returned from New Orleans, where he served for a period of three months on the staff of the Charity Hospital in the Department of Eye, Ear, Nose and Throat.

The American Child Health Association administrative office, 370 Seventh Avenue, New York, announces a series of scholarships for physicians for furthering child life. Ten thousand dollars is available for physicians who wish a broader training and also to those who would like to visit demonstrations and health centers.

"VITAMINS, HEALTH, AND THE DAILY DIET."

Bulletin No. 184, with the above title, has been issued by the University of Arkansas, College of Agriculture, Agricultural Experiment Station, Fayetteville, representing an effort on the part of the College to give as much support as possible to the great national movement of educating our people along lines of correct food and health habits. Probably no movement since the dawn of our history has been characterized by keener interest and enthusiasm than is the united effort of our national and our State health agencies to lead the American public to a better understanding of how to prevent illness and disease by giving greater attention to diet and to more hygienic living.

We call attention to this in the belief that many of our readers would be interested in looking over a copy, which can be secured free upon request to the College of Agriculture, University of Arkansas, Fayetteville.

THE MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Mississippi Valley Medical Association, a body that for many years has fostered and maintained the highest standards of Medical Organization, will hold its 48th annual session at Hot Springs, Arkansas, October 9th, 10th and 11th.

A program of outstanding merit and appeal has been arranged. Notable features being, Symposia on Cardio-vascular Renal Diseases and Diseases of the Upper Abdomen,

participated in by some of the nation's most noted authorities. The individual papers are carefully chosen and comprise pertinent topics with the maximum instructive value.

A special attraction will be a tour of the Reservation with its wonderful natural phenomena, and the session of the famous Government Clinic. All in all, this meeting offers a delightful combination of recreation

and scientific acquisition. Headquarters will be at the Eastman Hotel. Railroad facilities are ample to the gateways of St. Louis and Memphis.

Remember the dates, October 9th, 10th and 11th, Hot Springs National Park, Arkansas. Make your reservations now and for more detailed information consult Dr. Chas. Travis Drennen, Chairman of the Committee on Arrangements, Hot Springs, Ark.

Purebred Holstein Milk

In a letter dated Nov. 22, 1922, Stephen E. Vosburgh, M.D., Superintendent of the Maine School for Feeble Minded, West Pownal, Me., says:

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Original Articles.

CHRONIC HYPERCHLORHYDRIA; BEDSIDE DIAGNOSIS AND TREATMENT*.

E. L. Miller, M. D., Crossett.

Chronic hyperchlorhydria is one of the most common chronic conditions which we encounter, and for that reason it is an odd fact that it is very often confused with other conditions. That is why I emphasize bedside diagnosis. However much data may be revealed by the laboratory in both qualitative and quantitative analysis, we face these two facts: first, we must have a basis upon which to pursue such laboratory work as we do, and this basis is in itself a diagnosis; second, an intelligent bedside diagnosis furnishes almost every item of data necessary to treatment. In any event, the best available data for treatment are those obtained in the bedside diagnosis. This statement, somewhat at variance with accepted diagnostic methods, is—like the rest of this paper—based solely upon my personal observations.

The occurrence of chronic hyperchlorhydria varies in frequency with the locality, and is governed by dietary habits. I find it quite common among laborers, whose diet is unbalanced, and who ingest much bacon and fats. It is also common among those who introduce into the stomach such irritants as pepper and mustard in large amounts. I found it unusually prevalent among the Mexicans along the Rio Grande border, where I studied its cause in connection with the habits of its victims. I found these “greasers” poorly nourished, and subsisting largely upon the almost indi-

gestible *tortillas*, *frijoles*, and *chili con carne*. The last named, prepared as they eat it, contains a great excess of grease, and so much pepper that the uninitiated cannot eat it. Other observations have convinced me that excessive ingestion of fats and stomach irritants is responsible for most cases of chronic hyperchlorhydria.

SYMPTOMS.

Despite the frequency with which we meet this condition, patients thus afflicted come to us with complaints apparently not connected with the stomach. Most often the patient complains only of pain in the left chest, palpitation, and of “shortness of breath.” He thinks that he has heart trouble, and often we think so too. He directs our attention to his heart, we find a real disturbance of the heart’s function, and we feel justified in treating the heart. Indeed, quite often these patients come to me taking digitalis or strychnine, and sometimes both. But an almost negligible percentage of patients giving these symptoms of functional heart disturbance have heart lesions, almost all such disturbances being due to the effect of hyperacidity upon the vagus.

When a patient comes to me with such symptoms, it has been my custom to let him talk freely about his heart disturbance till he has finished all that he wished to say. Otherwise, when I ask him a question, he gives me but a perfunctory answer, and proceeds to talk about his “heart trouble.” By all means, let him finish his set speech. Even then, I ask him still further questions about his heart disturbance; because his mind is on it too firmly to sidetrack him, and further, because these symptoms are important in making a diagnosis.

I always examine the heart first. It is peculiarly irregular in its action, having, as a rule, a sort of cycle, consisting of four or five

*Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

contractions of decreasing intensity. The first contraction in the cycle is pronounced, attracting the patient's attention by hard pounding against the chest wall, and this usually frightens him. The last contraction in the cycle barely produces a radial pulse, and he says that his heart "skips a beat." Just at this time he has a peculiar sensation originating about cardiac opening of the esophagus and extending to the upper end of the sternum. This he describes as a "vacant" sort of feeling, which terminates in a choking sensation; and he must breathe deeply to offset smothering. While I have found some very low blood pressures in these cases, I find no constant relation between this condition and disturbed blood pressure.

Palpation of the abdomen reveals a pronounced pulsation of the abdominal aorta, which strikes the palpating hand with considerable force. This may not be present till the disease is quite advanced. The patient sometimes speaks of it as an annoyance. A small tender area is found in the epigastrium, which is discussed in another paragraph. Percussion usually reveals tympany of the stomach and often of the intestines.

While the patient seldom complains primarily of gastric symptoms, yet once his attention is directed to his stomach, he gives a history of gastric disturbance. He has frequent acid eructation. He can recall "sour belching" for a period of some years. He tells of gas in the stomach, which he may call "bloating." He has "heartburn." He complains of pain in the stomach one to two hours after meals. Discovering this, he eats but a small amount; but the symptoms still persist. He finds that a light meal gives as much disturbance as a heavy meal, the amount of food not being a factor in his trouble. He becomes afraid to eat, because after meals he has pain in his left chest, smothering, palpitation, and hard thumping of heart against the chest wall. Lying down after eating, he finds breathing more difficult, especially if he lies on left side. He thinks that a full stomach is crowding his heart.

He finds that these symptoms are increased especially after eating certain foods, though such foods probably were not factors in the cause of his chronic condition. Of such foods, cabbage heads the list, with navy beans a close second. They follow such foods as onions, sweet potatoes, syrup, cheese, pork and

any preparation containing vinegar or much fat. The patient has an aversion to drinking water because he says that it has a "flat" taste, and that it feels cold and heavy in his stomach. Also, after drinking the stomach feels in a lower position than usual.

Tenderness in the epigastrium is revealed by pressure on the lowest portion of the lesser curvature of the stomach, which is the exact point involved. In addition to the tenderness at this point, there is often a burning sensation. The excess of HCl in the stomach at such time combines with the excess fat usually ingested by these patients and renders such fat exceedingly irritating. At this time the eructations are very uncomfortable, and the patient says that he has "heartburn." The small amount of HCl necessary to render this fat irritating is not sufficient materially to affect the specific gravity of the latter, and therefore such fat still floats on the surface of the stomach contents. In this way it has but little effect on the lower part of the stomach wall, but it is constantly in contact with the lowest part of the lesser curvature. At this point it is just as irritating as it is to the esophagus in cases of "heartburn." However, the much-abused, long-suffering stomach does not feel this irritation till a real pathologic change has taken place, and the patient meantime is unaware of its existence. In severe cases an ulcer may develop at this point, which indicates an advanced stage of the disease.

The histories of these cases reveal incorrect habits of eating and the wrong kind of food through a period of years. Fats and irritants have been ingested freely. There has been a stomach disturbance for some years, and it has slowly become worse; but in its incipency it was not severe enough to do more than attract attention. Gradually he has lost weight, his skin has taken on a muddy hue, the condition becomes distressing, and he is depressed, fearing that he has heart trouble. It is this fear of heart trouble that brings him to the physician.

DIAGNOSIS.

Differential diagnosis of this condition presents no problem. No other condition presents the symptom complex outlined above, and as a rule most of these symptoms have developed when the patient appeals to his physician. He complains of disturbed heart

function, no lesions are found, our attention is attracted to the vagus, and this suggests stomach. We find acid eructations, cardialgia, tenderness at lesser curvature, gaseous distension of stomach, aversion to drinking water, pain in left chest, dyspnea, palpitation, cycle of heart contractions, choking sensation, smothering, pulsation of abdominal aorta, melancholia, loss of weight. These symptoms are becoming more pronounced, and are aggravated by eating cabbage, navy beans, onions, sweet potatoes, pork, cheese, fats, or preparations containing vinegar. These things in toto belong only to hyperchlorhydria.

TREATMENT.

The treatment is self-evident, is simple, and is sure of desired results. The patient is afraid to eat anything in sufficient quantity, but he can be convinced that he must eat three full meals a day. He omits the above-named foods, which either cause or aggravate the trouble. He should eat freely of the red meats prepared without grease. Broiled tenderloin or other tender steak will relieve the stomach of excess acid. Other foods may be taken almost without restriction.

The medical treatment consists of sufficient alkali to counteract the hyperacidity till such time as the stomach may recover its normal condition after removal of the cause of excessive HCl. The time necessary to accomplish such result is usually six months to a year. I use milk of bismuth and milk of magnesium in such proportion that the mixture is neither constipating nor laxative in its effect. I usually employ the following prescription:

Laetis Bismuthi150 cc.
 Laetis Magnesii q. s. ad.....500 cc.
 M. Sig. Teaspoonful t.i.d.p.c.

I usually instruct patient to take double dose for a few days till symptoms are controlled, then to keep up treatment with teaspoonful doses. This treatment will give relief in from 24 to 48 hours, and continuous treatment will remove practically every symptom in a few months. Patient should be instructed that after disappearance of symptoms the condition is not cured, and that continuous treatment for some months thereafter is necessary for a cure. When we reflect that this condition is peculiarly distressing, and renders a patient morose, melancholic, and

despondent, it is readily seen that a treatment over a period of several months is well worth while. It is a fact that after a few days or weeks of improvement a patient often notes a recurrence of all the distressing symptoms. At this time he considers the treatment futile and wants to stop it. He should be advised in advance of this recurrence of symptoms and instructed to double the dosage of medicine at that time. In 24 hours the symptoms will again disappear or abate.

No form of bismuth or magnesium should be used except the milk. For this reason do not let the patient know what he is taking. If he knows that he is taking magnesium, he thinks that a block of magnesium carbonate will answer the same purpose, and proceeds to treat himself accordingly, not knowing that the sodium hydroxide in the milk of magnesium is an important factor in the alkalinity of the mixture. Often I go so far as to add a few grains of phenolphthalein to the mixture, which completely changes its appearance and keeps the patient from suspecting magnesium. Your keeping him in ignorance simply protects him from himself and meddling neighbors, relieves him of his distress and saves your reputation from getting a black eye.

DISCUSSION.

Dr. T. S. Hare, of Crawfordsville: Anything that I am a little daffy on is this stomach business. I have known some surgeons to do more good work with the stomach than a lot of these stomach men in patients under forty years of age. In most of these cases you just forget your stomach and treat your patient through elimination. Sometimes, if they don't get all right, you can give them alkalies by the handful and still they complain and will come back to you. Most of these stomach cases under forty years of age are reflex. The conditions are not in the stomach. You think you have an ulcer there; but in most of these cases if you had that stomach out you would not find an ulcer. If you give them just mineral oil they will do better on that than any other kind of therapy you can give them. It has been my privilege in the past to go to some mighty good stomach specialists; some of the best men in New York. Personally, I was a victim of that disease for years (and am at times now.) I took milk of magnesia, and tried menthol, and all those things. When I give them mineral oil they get better. When I give them these stomach remedies, they hang on and hang on, but don't get better. But if you try elimination, the patients get better. If you get an old patient, you have a different problem; then, you may have to deal with malignancy. With young patients don't give them too much medicine; but diet them. Give them exercise and keep the bowels open.

Dr. H. E. Murry, of Texarkana: In about 95 per cent of the cases where I thought there was going to be a hyperchlorhydria, I found a hypoacidity. So, I think it is absolutely impossible for anybody to tell, where there are such symptoms as the doctor describes, whether the patient has hyperchlorhydria or hypoacidity. Hypoacidity will give the exact symptoms that the doctor has described. Conditions that cause hyperchlorhydria inside of the stomach are gastritis, ulcer, either of the stomach or of the duodenum, and some of the chronic diseases of the body, such as syphilis, cardiac-renal diseases and tuberculosis, at times. Diseases of the stomach that cause hyperchlorhydria are early gall bladder disease, chronic appendicitis, colitis and certain of the chronic diseases. Of course, pyorrhea of the gums frequently causes hyperchlorhydria. But I think an analysis is absolutely imperative to make a diagnosis of whether or not the patient has hypoacidity or hyperchlorhydria.

The cause of the symptoms of marked depression, colorless skin, a cold, clammy feeling, low blood pressure and all those things usually are due to protein putrefaction in the intestines, owing to poor digestion and stagnancy in the gall-bladder—a toxemia from undigested protein absorption.

Just recently one of my colleagues, Dr. Levin, of New Orleans, came to the conclusion that protein, being absorbed into the blood, causes this marked depression. Investigating along the same line, Banting and Best, of Toronto, have produced a remedy called insulin, for the treatment of diabetes. He suggested the use of a preparation of what they call liver extract or hepatic extract. This is made of ground-up liver, put into a solution and injected under the skin. This will digest these proteins in the blood, and the patient usually shows marked relief from it. I have used it on four different patients. I have just received the preparation in the last three weeks. Three of the patients, in one hour after having the medicine, reported they felt relieved from the depression. I think that the clammy skin and muddy complexion, depressed feeling and low blood pressure are usually due to the amino-acids and undigested proteins that are in the blood. Usually due to a chronic gall bladder or obstruction in a mild way of the biliary tract, which prevents the proteolytic enzyme digesting in the proteins to the last step.

Dr. Miller (in response): Answering the first doctor, I, too, had this trouble; but I am not bothered with it any more. I advise you to try the alkalines. The proof of the pudding is in the eating thereof. Unfortunately, I have not been able to collect the cases on this, for the simple reason that at first I had no idea of making a special study of it, and I have only had a chance since my return from France to take this up again, and I have lost sight of the patients. But the results of this treatment are absolute. There is no question about it.

There are some very recent cases that I am now studying that I can make a report on, that I can recall from memory.

In February, a farmer, 46 years of age, was the first case I found in a long while that had any real heart symptoms. He had mitral regurgitation. I had to make an examination of him sitting up, because he couldn't recline long enough for me to examine him. The results in his case were rather startling, because of the fact when I saw him two weeks ago he was

plowing. His mitral regurgitation was still present. This man has gained weight, too.

Another case came to me on March 18th last. He was a farmer 48 years old. He hadn't worked for years. The case was bad. He walked with a stick because of his enfeebled condition. I saw him again on the 29th of April, which was last Sunday, and his improvement in that brief length of time was very pronounced. He said to me, "I have thrown my stick away." That might have been the psychic effect, perhaps.

But the idea I want to advance is that these results are real results, and those are the cases I can recall. The results are real and absolute from this method of treatment. Withhold every element which causes or aggravates this trouble and have enough red meat to take up this excess acid, and sufficient alkalines until such time as the stomach can recover from this symptom and the results are always absolutely gratifying.

"THE AUTO CAMPING TRIP AS A VACATION FOR THE DOCTOR AND HIS FAMILY."*

By Thad Cothorn, M. D., Jonesboro.

Life is one thing. Living is another. Life is sublime, wholesome and beautiful. Something to absorb, to love, to take on and be in whether we wish it or not. 'Tis a something outside of us as well as in and of us, but over which we have no control.

Living can be, and should be, a part of life. Something as beautiful, as sublime, as wholesome and as broad, generous and tolerant, as desire, thought, and action can make it; but all too often, 'tis so very narrow, sordid, selfish and unwholesome that it is something very loathsome and mean. 'Tis a something that is up to us, both individually and collectively, but more as pertains to us personally. Living is up to us entirely and we can *live it* as we will. Life pertains to all nature as well as man. We have the seasons in which the vegetable kingdom takes on new life, growth and bears fruit; then reedes or dies. The fragrance of the flowers, the enchantment of the landscape, the grandeur of the mountains, the valleys, the waves and the clouds are a part of life, as well as the song of the bird, the laughter of children, and the gladness and responsibility of parenthood.

Life is so near us and a part of us that it seems that living would favor it and be hard to separate or distinguish from it, but what do we see? Are you living as you know you

*Read before the First Councilor District Medical Society Meeting, at Black River Club House, near Pocahontas, September 5, 1923.

should live? Is your daily life such that it brings happiness and joy to your companion and children? Does it help your fellow-worker, your neighbor, your competitor? Is it free from littleness, meanness and from jealousies?

Is your living so engrossed in pushing your profession, in building up and holding your practice that all else is overlooked?

Some months ago my attention was directed to this matter by a clipping from the Christian Herald sent to me by my mother. Have forgotten the title of the article, but the substance was as follows:

A young man starting out on life's journey fixed his goal high up on the mountain top. As he toiled up the incline, he came to many fairly level places where the going was less difficult. In some of these places were retreats—like flower gardens, or shady, grassy plots, with seats for contemplation and rest. Some were filled with people near his own age, who seemed to be having a holiday, and they invited him to come in and partake of their refreshments and enter into their games. It looked inviting and all of them seemed happy, but the goal was on higher up the mountain, so he explained that he could lose no time, but must hurry on. Other places were filled with children whose laughter echoed up and down the dale. They begged him to come and play with them, but, no, he must hurry on. As he toiled farther up the mountain, the goal seemed to be nearer, but the going more difficult. The flower gardens, the shady nooks and the grassy dells were now far below, and the way seemed more difficult and the outlook more dreary. To one side he saw a hut with this sign above the door, "Enter and Rest." No one was there to invite him to enter. Inside there was a seat, some simple food and drink and a wealth of choice books and magazines, but, no, the goal was not yet reached, and he must hurry on, so he struggled up the steep pathway—on and on—with all else except the goal shut out of his vision, until finally the summit was reached. The goal was attained and now he could rest. When he began to look for a place to relax and rest, none could be found, for all the energy he possessed was required to maintain the position now reached. The goal attained, he could descend and enjoy the various things he had passed up as he so hurriedly climbed to the summit. He said unto

himself, "I will now enjoy the things by the wayside," but when he began to look for the road, a mist seemed to obscure the view. As he haltingly stumbled down the mountain side, the landscape view was changed. The magazines and books were tiresome and the food stale. The dale, formerly filled with children and their laughter, was now filled with people as old or older than he, and each seemed so occupied with their own cares and troubles that no notice whatever was taken of him. He now began to hurry on from one place to another, but all was changed. Nothing was to be found of all the beautiful and lovely things he saw on his way up; and now what had he acquired by mounting to the top and reaching the goal? Let us leave him with his own thoughts and remorse for a mis-spent life; and as we travel on life's journey, let us learn to *live by the way*. Let us read the books and magazines while they are alive and interesting and can hold the attention. Let us enjoy the companionship and pleasures of our equals while it is available, for too many of us, in the scramble and push, get so engrossed in our work that the power to enjoy living by the way is stifled. Let us enter the simple games of the children and enjoy their laughter while we may, for all too soon we will be like the wise six-year-old, who was called up for the first view of his newly-born brother. He leaned over the side of the crib with his mouth near the tiny ear of the infant and said, "Now, brother, tell me all about God before you forget Him, too."

As a result of the thoughts started in motion by the article above mentioned, I began to take stock of myself and to make an inventory of my powers for living during the last decade. Needless to say, I was forced to see much amiss. So engrossed had I become in my work that anything outside of it seemed to be a waste of time. My children had to look elsewhere for someone to notice their games or to listen to their day dreams. My wife's difficulties of housekeeping or homemaking were not worthy of notice or comment. If I attended a club meeting or a social gathering, the thought would keep coming up, "Why waste time when I could be doing something at the office?" Enough of this—for you can guess the balance.

Now, I am coming to my subject, "The Auto Camping Trip as a Vacation for the Doctor and His Family." How better could

I get acquainted with my family than to get out with them on a few weeks' tour? I broached the subject at a family conference and all were for it. Then the pleasures of anticipation we all got in planning for the trip was no small matter. I subscribed for two magazines, "Outdoor Life" and "Forest and Stream." In these we found advertised outing things of all types and kinds. We wrote to practically all of them for catalogs and price lists, and then began the matter of selection and the making of decisions of what was essential and what was not. Our whole family had a common interest and that brought us closer together, for when something was decided to be essential it was ordered. We became so interested in our planning that our neighbors and associates became interested too. When the articles began to arrive the need of familiarizing ourselves with them, packing them, and placing them on the car, took some of our attention and we began to think so much less about my office and the work connected therewith.

When the tent came and we got the poles cut and hinged, and arranged so that we could fold or unjoint them so that we could conveniently pack them on the car, we stretched it up in our back yard to learn how to handle it. When we got it up, it looked so inviting, my boy got some of his playmates and they slept in it for several nights. Several small four or five-year-old neighbor boys came and slept on the cots in the tent and felt like real adventurers and explorers, so you can see some of the joys we had before the trip began. Our planning was so practical and thorough that after we started on our trip we had to buy only a piece of rubber tubing to siphon out gasoline for cooking purposes and a manila clothes line so that we could hang out clothes for airing.

Several states were thoroughly covered, but it would take too long to go into details. This is the way that any of us can *afford to travel*, for the cost is negligible and the comforts and conveniences just what you make them. From the traveling experiences we have had, we think it is the best way of all to really see the country and places of interest.

Any questions anyone might wish to ask regarding our equipment or the places visited, I shall be glad to answer, but think it would prove too wearisome to enumerate them in detail.

THE NATURE OF INSULIN.

The artificial synthesis of products of great physiologic potency is always a fascinating goal of biochemistry. This is particularly true in the case of hormones, such as those produced in the endocrine structures, which are present in extremely small concentration and therefore require large quantities of tissue material for their separation in any considerable amount. The suprarenal, thyroid and pituitary, for example, are being used commercially on a large scale for the manufacture of the desired pharmacologic agents that they contain. The latest addition to the list of useful depots of hormones is the pancreas, the source of the already highly valued insulin. The demand is large, and the isolation of a potent product is a laborious and costly undertaking. Before the prospect of a synthesis of the active substance can be entertained, its chemical structure must be ascertained. The earlier indications¹ that insulin may be protein in nature have recently been supported by the investigations of Dudley² at the National Institute for Medical Research in England. He points out that its ready absorption, its failure to pass through an ultrafilter, and its rapid digestion by trypsin, particularly by pepsin, all indicate that it is most probably a substance having a very complex structure and protein-like in its nature. Consequently, Dudley points out that the hope of its isolation as a chemically pure substance becomes slender, and of its synthesis very remote, by methods at present at our disposal. Furthermore, we are reminded that the administration of insulin by mouth is not feasible on account of its rapid destruction by the digestive enzymes, and the relatively large size of its molecule makes it unlikely that absorption from mucous surfaces, such as those of the nasal passage, a method that has recently proved useful in controlling diabetes insipidus with pituitary extract, will be practically useful in the case of insulin.—*Jour. A. M. A.*, Sept. 29, 1923.

1. Doisy, E. A.; Somogyi, M., and Shaffer, P. A.; Some Properties of an Active Constituent of Pancreas (Insulin), *J. Biol. Chem.* 55; 31 (Feb.), 1923.

2. Dudley, H. W.: The Purification of Insulin, and Some of Its Properties, *Biochem. J.* 17; 376, 1923.

THE JOURNAL

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

PREVENTION OF DIPHTHERIA.

We have anti-tuberculosis campaigns, cancer educational campaigns, vaccination made compulsory as to school children, and other measures to check communicable diseases; but no concerted efforts to immunize children from the dreaded disease, diphtheria—although that is the fifth in the number of fatalities, according to the mortuary reports in the registration area.

At the meeting of our State Society last May a resolution was adopted indorsing the idea of immunizing all susceptible children in the schools on the same plan as pursued in the compulsory vaccination of children as a necessary qualification for registration as pupils in the public schools. This resolution was presented by Dr. J. B. Dooley, delegate from Pulaski County, a similar resolution having been endorsed by his local society. Dr. Henry Thibault of Scott, delegate from Lonoke County, seconded the resolution, and said: "I think it is one of the most important things that we can bring forward. It is surprising, with the length of time and the amount of literature that has been printed in telling the benefits of small-pox vaccination, that, in taking case histories, you will find so many people, who are supposedly educated, that are not vaccinated against small-pox. And I believe that it is up to the medical societies to continue to educate the people along the lines of preventive medicine, especially with reference to the toxin anti-toxin vaccination for protection against diphtheria, and the ordinary vaccination against small-pox."

Of course, the State Society reaches the limit of its powers in recommending such a measure. It is hoped, however, in view of the proven merit of the Schick test and toxin anti-toxin immunization, that such measures eventually may be taken. Compulsory immunization would be met by objections, of course. So was compulsory vaccination, and still is, in some parts of the country. But, there is this difference between the two diseases: whereas, diphtheria is distinctly a disease of children, small-pox is no respecter of age, sex, color or previous condition, and, in view of past epidemics, drastic measures are necessary to compel vaccination, always as to school children, and in case of threatened small-pox epidemics, to adults.

While it is unlikely that enforced immunization will come in the near future, it is in the province of the physician to recommend such immunization in his practice and whenever opportunity arises. Any fear that parents may have of possible harmful or painful effects on their children, may be dismissed, for experience has shown that the use of toxin anti-toxin is quite harmless even when administered to babies—indeed, the younger the child the less is the reaction to the injection.

In a paper by Dr. Moffett of New York, in the "Annals of Clinical Medicine," May, 1923, he says: "Three injections may be given one week apart," and they should be given as soon as possible after the first eight or nine months of the child's life.

No disagreeable or serious reaction has been noted locally by the use of this mixture employed as above. The reaction at the site of injection is not so severe as occurs with typhoid inoculation and the procedure may be used without any fear of serious consequences to the patient.

"Probably 90 per cent of the children are made immune for life by this treatment."

In 1921 there were over 209,000 cases of diphtheria and over 20,000 deaths in registration area alone. Ponder these figures and then note the concluding words of Dr. Moffett's paper as to 90 per cent of children treated being made immune for life.

The Schick test was originated only ten years ago by Dr. B. Schick of Vienna as an intracutaneous reaction to detect the immunity of the individual against diphtheria; that is, by the ability to determine which of great numbers of children, if exposed, could contract diphtheria. The amount of anti-toxin used as a preventive against the disease was largely reduced, since it is useless to use the anti-toxin serum on children proved to be immune by the Schick test. The importance of the use of this test in orphan homes, schools and other institutions having the care of a large number of children, cannot be over-estimated.

Extensive work with the Schick test has been carried on in New York and throughout the United States, and its use has long since passed the experimental stage and its value stands demonstrated. The members of our society should use their influence for its adoption in this territory.

Abstracts.

EXISTENCE OF A HITHERTO UNKNOWN DIETARY FACTOR ESSENTIAL FOR REPRODUCTION.

The "synthetic" nutritive regimen employed by Herbert M. Evans and Katherine Scott Bishop, Berkeley, Calif. (Journal A. M. A., Sept. 15, 1923), in their experimental work with rats was a basic ration consisting of casein (18), cornstarch (54) and lard (15), following Osborne and Mendel, to which milk fat (9) and salts (4) are added, the animals receiving separately and daily from 0.4 to 0.5 gm. of dried whole yeast. The basic dietary regimen was supported by the daily administration of orange juice in one series of experiments, and by lettuce leaves in another series. Only one gestation out of five or six was successful with the orange juice regimen, but every individual tested produced litters of healthy young when fresh green lettuce leaves had been added to the dietary. It thus seemed apparent that there was a new member of the "vitamin" substances, or specific dietary needs, which the authors have provisionally designated by the letter X or as the antisterility factor. They have attempted to chart its occurrence in natural foodstuffs by the simple test of whether or not they would alleviate or fail to alleviate the dietary sterility disease. Several hundred gestations have been conducted. The efficacy of fresh green lettuce leaves in curing the dietary sterility is always very striking. The curative dose most frequently employed has been 40 gm. of the fresh substance, an amount corresponding to somewhat less than 1.5 gm. of dry weight. In the colony, it has become a routine way of restoring fertility and of thus furnishing what the authors have always regarded as the necessary proof of the normality of an animal, when various other attempted dietary cures have failed. To date, forty-five trial gestations have been studied with this as a curative substance, and all but one of them has resulted in the birth of normal litters of young. Two tests have indicated that as little as 10 gm. of the fresh leaf substance may result in the birth of healthy young. It has further been ascertained that the seedlings of the Canadian field pea similarly restore fertility. Fertility has usually resulted on administration of 1.5 gm. of the

powder made from lettuce leaves dried in an oven with fair air exchange and at a temperature of 100 C. The powder obtained from milling dried alfalfa leaves is similarly effective. Whole cereals protest against sterility, or cure it when it is once established. Thus, whole wheat and oats are effective. Wheat embryo has shown a remarkable potency of this substance. One of the surprising results has been the demonstration of an almost total absence of the new vitamin from milk. The factor essential for normal reproduction occurs in egg yolk and meat. The jaw and cheek musculature of the cow contains enough of it for daily doses of 1 gm. of the cooked meat to be adequate. Finally, it has been possible to extract from curative foodstuffs with 80 or 95 per cent ethyl alcohol and with ether the curative principle. This is singularly concentrated in the deep brown oil thus obtained by ether from wheat embryo after preliminary treatment with hot 80 per cent alcohol. A daily dose of slightly more than 100 mg. of this oil confers cures of the dietary sterility. In most instances, water extracts have been ineffective.

PEDIATRICS AND THE CHILD.

The added knowledge that the physician must have to become a pediatrician, Borden S. Veeder, St. Louis (Journal A. M. A., Aug. 18, 1923), says, is a knowledge of the child. This requires (1) a knowledge of the physical growth and development of the child and the factors which affect it—or nutrition, and (2) a knowledge of the mental development and psychology of the child. There is an old conception of the pediatrician as the physician who devoted himself to infant feeding—a conception still erroneously held by many today, including even a few specialists. The entire question of the nutrition of the older child has been, with few exceptions, a development of the last few years, and it has been found to be a field of almost equal importance with that of the infant, and a field susceptible of almost limitless exploration. A knowledge of the psychology of childhood is as essential to the pediatrician as a knowledge of disease, as it is an integral part of the development of the child, and without it one cannot understand many of the factors influencing physical growth. Child hygiene is at present the most important motif in pediatrics. In child

hygiene work it has been the child that has been the topic of consideration—not disease or medicine. Child hygiene is nothing more than the application to the individual of the measures that lead to the normal growth and development of the child, and the methods by which these measures can be applied to large numbers of children. It includes not only physical health, but also mental health. The change in conception of the physician from the healer of disease to the counselor of health is the great advance made by the present era of medicine, despite the tremendous impetus and eclat that have been associated with medical research in the last few years; and this is particularly true in the field of pediatrics. The reduction in infant mortality, which is the proudest achievement of pediatrics, has not been due primarily to the development of any method of artificial feeding or to the study of disease, but to education in hygiene and the study and correction of the environmental factors which lower the physical well-being of the infant.

Personal and News Items.

Dr. J. H. Stidham has moved from Prescott to Blytheville.

Dr. C. E. Gosnell has moved from Nashville to Bingen.

Dr. Sam J. Allbright has moved from Kensett to Searcy.

Dr. G. A. Warren of Black Rock visited in Little Rock last month.

Dr. L. R. Ellis of Hot Springs recently spent a day in Little Rock.

Dr. W. B. Hughes of Little Rock has returned from Chicago.

Dr. Jas. I. Scarborough, Little Rock, has returned from an extended visit in the East.

Dr. J. L. Greene, Hot Springs, has returned from an extended visit in the West.

Dr. W. H. Toland of Nashville is attending the clinics in New York City.

Dr. Arthur L. Goatcher of Plumerville visited in Little Rock last month.

The Conway Commercial Club has planned a campaign for a community hospital.

Dr. R. L. Smith of Russellville recently visited in Little Rock to be with his son, who was operated on for appendicitis.

Drs. Morgan Smith and A. C. Kirby announce their removal to the Hall Building, Little Rock.

Dr. and Mrs. Loyd Thompson of Hot Springs have returned from an extended trip East.

Dr. Wm. E. Jones, Little Rock, has returned from a three months' post-graduate course at Mayo Clinic.

Dr. H. W. Browning of Little Rock is in St. Louis taking a special course in diseases of children.

Dr. Robt. Caldwell of Little Rock has returned from a month's vacation in the North and East.

Drs. C. C. Reed and Robt. M. Eubanks of Little Rock have gone to Chicago to attend surgical clinics for a few weeks.

Dr. Stanley M. Gates of Monticello recently visited in Havana and in the Cuban interior.

Dr. C. C. Kirk and family have moved into their new residence at 2212 Broadway, Little Rock. Dr. Kirk will announce his office location after a short visit in the East.

Dr. H. A. Higgins of Little Rock has returned from a two weeks' cruise as senior medical officer on the U. S. S. Eagle, No. 3, in the Gulf of Mexico.

The next meeting of the Tri-State Medical Society will be held November 20, 21, 22, at Memphis. Dr. C. M. Harwell of Osceola, Arkansas, is President.

Dr. Morgan Smith, Little Rock, recently resigned dean of the School of Medicine, University of Arkansas. Dr. Smith will devote his entire time to the practice of pediatrics.

Dr. Theo Freedman, who has had fourteen years' service as physician and surgeon in the Missouri Pacific railroad shops, North

Little Rock, has been promoted to assistant district surgeon, under Dr. W. F. Smith.

Dr. Freedman was transferred from St. Louis in 1909, and inaugurated the hospital service in the North Little Rock shops. Dr. Horace F. Villars of Little Rock has been named to succeed Dr. Freedman.

Dr. C. J. March of Fordyce has resigned the Secretaryship of the Dallas County Medical Society. The President, J. Y. Smith, has appointed Dr. Marvin Taylor of Sparkman as his successor.

The American Society for the Control of Cancer announces that, instead of a single National Cancer Week this year, there will be a series of six cancer campaigns, one month being devoted to the subject in each six regions in the United States and Canada.

Dr. W. Turner Wootton of Hot Springs addressed the joint meeting of the Medical Society of the Missouri Valley and the Interstate Society of Radiology and Physiotherapy at Omaha, Nebraska, September 20, on "A Consideration of the Immunity in the Life of a Syphilitic Individual."

Dr. H. F. Williams of Ozark was elected President of the Tenth Connelior District Medical Association at its recent annual meeting in Fort Smith. Dr. Matt S. Dibrell of Van Buren was elected Vice-President and Dr. W. A. Pickens of Bentonville was named Secretary-Treasurer.

A copy of the proceedings of the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, which was held in Chicago March 5-7, 1923, may be obtained at the nominal charge of fifty cents each, by writing N. P. Colwell, Secretary, 535 N. Dearborn Street, Chicago.

Dr. Earl Miller has been appointed Director of the Department of Experimental Medicine of Parke, Davis & Company, Detroit, to fill the vacancy following the death of Dr. Ezra Read Larned, who was the originator and organizer of this department and occupied the position as head of the department until his death. Dr. Miller was assistant to Dr. Larned for twelve years and has a wide acquaintance among medical men interested in clinical research work.

The Harding Memorial Hospital Fund drive will be launched soon for the purpose of raising \$150,000 to be used in building and equipping one of the main wings of the Baptist State Hospital, Little Rock, as a memorial to the late President, Warren G. Harding.

The drive is to be statewide in its scope, and may possibly become national.

Former Governor Charles H. Brough has been appointed chairman of the general committee, and will be active in the campaign. He is planning to go over the State in behalf of the campaign, bringing before the people what they owe to Warren G. Harding. Five thousand dollars have already been subscribed to the campaign fund by one individual.

GIVE OUR ADVERTISERS A SQUARE DEAL.

Once in a while it behooves us to call attention to our advertisers. Don't lose sight of the fact that the Journal of the Arkansas Medical Society belongs to the members of the society. It is not a private enterprise for private gain and it is supported by the advertisers. Most advertisers trace results. If results are not apparent they cease to use the publication which does not seem to be effective. Therefore it is not only a duty the member of the Society owes himself to patronize our advertisers, but to let the firm from whom he buys know that his advertisement was seen in the Journal. Just a line at the bottom of the order, such as "I saw your ad in the Journal of the Arkansas Medical Society," will encourage the advertiser to renew his contract with the Journal.

ADMINISTRATION OF INSULIN.

The present methods of administering insulin parenterally are far from satisfactory. Consequently, the earliest investigators of insulin and other pancreatic preparations attempted to secure physiologic effects by oral administration. There is evidence that slight effects may be obtained when insulin or other pancreatic preparations are introduced into the organism by way of the mouth under certain conditions. On the whole, however, the oral administration of insulin has proven quite inefficient. Rectal administration and nasal insufflation have been tried without

success. A recent study showed that pancreatic extracts taken in capsule form by the stomach was not effective in decreasing blood sugar or urinary sugar. It is desirable to give wide publicity to the current limitations of a most promising therapy, since unscrupulous vendors are already attempting to distribute just-as-good pancreatic or antidiabetic preparations that are recommended for oral use.—*Jour. A. M. A.*, September 1, 1923, p. 752.

WASHINGTON MEETING OF THE SOUTHERN MEDICAL ASSOCIATION.

The Southern Medical Association will hold its seventeenth annual meeting at Washington, D. C., Monday, Tuesday, Wednesday and Thursday, November 12-15, 1923. Dr. W. S. Leathers, Executive Officer, Mississippi State Board of Health, Jackson, Mississippi, is the President.

This meeting will be made up of twenty sections and conjoint meetings—the programs of these meetings will cover every phase of scientific medicine and surgery.

The President of the United States will receive informally the members of the Southern Medical Association and their wives, Thursday, November 15, at 12:30 p. m., at the White House. Of special interest to the ladies will be the reception at the Washington Club on Tuesday afternoon, where Mrs. Woodrow Wilson will be the guest of honor. The usual reception to the President of the Southern Medical Association will be held on Tuesday night at the New National Museum, one of the most beautiful public buildings of Washington, a detachment of the Marine Band furnishing the music. Other special entertainments being received.

At the first general session Monday night, in addition to the address of the President, Dr. Leathers, there will be an address by Dr. Geo. E. Vincent, President of the Rockefeller Foundation, New York, N. Y.; Oration on Public Health, by Dr. W. S. Rankin, State Health Officer of North Carolina; Oration on Medicine, by Dr. Stewart R. Roberts, Atlanta, Ga.; and Oration on Surgery, by Dr. J. W. Barksdale, Jackson, Miss.

A joint dinner by the Section on Surgery and the Section on Radiology, as well as a number of section dinners, will be interesting features of Tuesday evening. The Alumni

Reunions which promise to be an outstanding feature of this meeting, will be held Wednesday night and it is expected that there will be large groups present from all the leading medical schools.

Physicians who golf are urged to bring their clubs. There will be a golf tournament at which the usual prizes will be offered. Play will be over the championship course of the Columbia Country Club.

The University of Virginia Hospital, Charlottesville, has already announced special clinics for Friday and Saturday following the meeting. While no definite announcement has been made yet, it is anticipated that Johns Hopkins and the University of Maryland will arrange clinic programs for Friday and Saturday following the Washington sessions.

Washington has many splendid hotels and everyone is assured of comfortable accommodations this year. Special reduced rates have been granted by railroads on the certificate plan. Each member of the Southern Medical Association will receive a certificate without application for it. Any physician who is a member of his State and County Medical Society, although not a member of the Southern Medical Association, who desires to attend this meeting, can have the benefit of these reduced rates by requesting a certificate from the Association office.

County Societies.

MISSISSIPPI COUNTY.

The Mississippi County Medical Society met in regular session at the courthouse in Blytheville, Tuesday, September 11, 1923.

The following members and visitors were present:

Hill, Wilson, McCall, Saliba, Husband, Grimmett, Stidham and Smith of Blytheville; Hudson, Lowry and McCreight of Luxora; Tidwell and Luckett of Dell; Nall, Armorel and Gardner from No. 9.

"Pellagra" was discussed and a number of clinical cases were presented by Dr. Tidwell.

The next meeting will be at the Blytheville Hospital in October. Notice will be mailed to each physician as to the exact time of this meeting.

PULASKI COUNTY

(Reported by R. J. Calcoate, Sec.)

The Pulaski County Medical Society met October 1.

Dr. L. V. Parmley read a paper on Orthopedic Conditions of the Feet.

The following program was announced:

"X-Ray Therapy on Tonsils"—Dr. J. H. Scroggins.

October 15, 1923:

"Conservation versus Ablation of Ovarian Tissue"—Dr. Dewell Gann, Jr.

"Spina Bifida"—Dr. Homer Scott.

October 29, 1923:

"General Anesthesia"—Dr. M. G. Daly.

"Some Phases of Biological Therapy in a General Practice"—Dr. A. W. Strauss.

November 12, 1923:

"Important Minor Points in an Obstetrical Practice"—Dr. S. B. Hinkle.

"Biological Therapy in a Genito-Urinary Practice"—Dr. H. F. H. Jones.

November 26, 1923:

Dr. J. L. Greene, Hot Springs—Subject to be announced later.

December 10, 1923:

President's address.

Election of Officers for 1924.

A cordial invitation is extended to the visiting physicians to attend these meetings.

Book Reviews.

Nursery Guide for Mothers and Nurses.—By Louis W. Sauer, M. A., M. D., Chicago. Published by C. V. Mosby Company, St. Louis, Mo. Price, \$1.75.

This little volume is intended to aid those to whom are entrusted the care and feeding of infants. The book is illustrated.

Nursing and Nursing Education in the United States.—Report of the Committee for the Study of Nursing Education. Josephine Goldmark, Secretary. Published by The MacMillan Company, New York. Price \$2.00.

Table of Contents gives Part A, Functions of the Nurse." Part B, "Training of the Nurse."

Impotency, Sterility and Artificial Impregnation.—By Frank P. Davis, Ph.B., M. D. Second Edition. Revised and Enlarged. Published by C. V. Mosby Company, St. Louis, Mo. Price \$2.25.

The author of this book gives such facts as he has been able to glean in a number of years' active practice.

No person is so well prepared to teach young men and women their duties and their dangers along sexual lines as is the pure-hearted physician.

Clinical Laboratory Methods.—By Russell Landram Haden, M. A., M. D. Associate Professor of Medicine, University of Kansas, School of Medicine, Kansas City, Kansas. With 69 illustrations and 5 color plates. Published by C. V. Mosby Company, St. Louis, Mo. Price \$3.75.

This book gives a series of procedures which have been thoroughly tried out and found to give accurate results. In the author's selection of the methods, his first requirement has been the correctness of the underlying principle, and next the adaptability of the procedure to routine use.

Spectacles and Eyeglasses; Their Forms, Mounting and Proper Adjustment. By R. J. Phillips, M. D., Philadelphia. Fifth Edition, revised with 61 illustrations. Published by P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. Price \$1.50.

This revised edition keeps step with the permanent progress of the arts of the optician rather than pursue subjects of the temporary vogue. It concisely gives that knowledge of the correct placing of the glasses before the eyes without which the most painstaking measurements of the refraction will frequently fail of practical results.

Exercise in Education and Medicine.—By R. Tait McKenzie, M. D., LL.D., Professor of Physical Education and Physical Therapy and Director of the Department of Physical Education, University of Pennsylvania. Octavo of 601 pages, with 445 illustrations. Published by W. B. Saunders Company, Philadelphia, 1922. Cloth, \$5.00 net.

The purpose of this book is to give a comprehensive view of the space exercise should hold in a complete scheme of education and in the treatment of abnormal or diseased conditions. The book is divided into two parts.

No. 1—Exercise in Education. No. 2—Exercise in Medicine.

The Surgical Clinics of North America (Issued serially, one number every other month). Vol-

ume III, Number 1 (Philadelphia Number, February, 1923), 300 pages with 105 illustrations. Per Clinic year (February, 1923, to December, 1923), Paper, \$12.00 net; Cloth, \$16.00 net. Philadelphia and London; W. B. Saunders Company.

This issue of the Surgical Clinie presents articles by the leading surgeons of Philadelphia. Among others we wish to mention Dr. John B. Deaver, Dr. Chas. H. Frazier, Dr. Astley P. C. Ashhurst, Dr. P. G. Skillern and Dr. Francis C. Grant. Dr. Grant's clinic is an illustrative case on the "Use of Air in the Diagnosis of Intracranial Lesions."

The Surgical Clinics of North America (Issued serially, one number every other month). Volume III., Number 2 (New York Number, April, 1923), 286 pages with 159 illustrations. Per Clinic year (February, 1923, to December, 1923), Paper, \$12.00 net; Cloth, \$16.00 net. Philadelphia and London; W. B. Saunders Company.

This issue opens with a clinical demonstration by Dr. Fred H. Albee, New York Post-Graduate Medical School and Hospital, on "Ununited Fracture of the Lower Jaw." His lecture closes with the presentation of a patient illustrating those in which massive grafts are absolutely necessary to bring about cosmetic results.

The Infant and Young Child.—Its care and feeding from birth until school age. A manual for Mothers. By John Lovett Morse, M. D., Edwin T. Wyman, M. D., and Louis Webb Hill, M. D., of Harvard Medical School and Children's Hospital, Boston. 12mo. of 271 pages, illustrated. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth, \$1.75 net.

This book gives the methods of intelligent care and feeding of children from the time they are born until they are six years old. It is not intended in any way to take the place of a physician, but it will enable mothers to take care of their children when they are well and to carry out the physician's advice when they are sick.

Recovery Method for Use in Tuberculosis.—By Gerald B. Webb, M. D., President, Colorado School of Tuberculosis, Colorado Springs, Colorado, and Charles T. Ryder, M. D., Colorado Springs, Colorado. Published by Paul B. Hoeber, Inc., 67 E. 59th Street, New York. Price, \$2.00.

This book is an attractive volume of pocket size. There are 78 pages of text divided into 4 Chapters with the following titles: I. The

Record of Recovery; II. The Technic of Recovery; III. The Hygiene of Recovery; IV. Accidents and Obstacles.

Following the text are 108 chart sheets, each good for one week and on them the patient is expected to keep his own recovery from day to day.

Diseases of the Rectum, Anus and Colon.—By Samuel Goodwin Grant, M. D., LL.D., Professor and Chief of the Department for Diseases of the Colon, Rectum and Anus at the Broad Street Hospital, Graduate School of Medicine, New York City. Three octavo volumes, totaling 1,516 pages, with 1,128 illustrations on 1,085 figures and 10 insets in colors. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth, \$25.00 net.

These volumes are convenient in size and present a complete treatise covering the subject matter as brief as clarity will permit.

The text has been newly written from cover to cover. Many new illustrations have been incorporated. The subject of hemorrhoids is discussed in nine chapters in the first volume. Malignant growths are described and discussed from all angles in a large part of the second volume. In the third volume, among many other subjects, is described "Organic and Sundry Diseases"—resultant gastro-intestinal, colonic and rectal disturbances.

Premature and Congenitally Diseased Infants.—By Julius H. Hess, M. D., Professor and Head of the Division of Pediatrics, University of Illinois College of Medicine. Illustrated with 189 engravings. Published by Lea & Febiger, Philadelphia. Price, \$5.50.

The author of this volume presents his classification comprising the premature and congenitally debilitated as follows:

1. Premature infants, with no pathological changes.

2. Premature infants, with pathological changes, due to:

- (a) Constitutional disease and chronic infections in the parents.
- (b) Maternal factors influencing the fetal nutrition, such as overwork, undernourishment and acute illnesses during pregnancy.
- (c) Local conditions in the mother.
- (d) Multiple pregnancies.
- (e) Constitutional defects and congenital malformations in the fetus.
- (f) Infants born to parents late in life.

3. Full-term infants with pathological changes due to the same causes as those enumerated under 2.

Applied Psychology for Nurses.—By Donald A. Laird, Assistant Professor of Psychology, University of Wyoming, Lecturer in Nursing Psychology, Ivinson Memorial Hospital School of Nursing. 236 pages, 49 illustrations. Published by J. B. Lippincott Company, Philadelphia. Price, Cloth, \$2.50.

This book is the result of an attempt to select from the vast literature of psychology those facts that will be of most immediate aid to nurses in understanding the patient, themselves, and their fellow-men, as organisms that act, think and feel. The author has endeavored to avoid all controversial matter that is not borne out by fact. The point of view from which the facts are presented is biological. This does not alter the fact or applications. But it does seem to further the intelligent understanding of the behavior of human beings.

The text of the book is divided into four parts. Part One is introductory in nature. Part Two presents the biological foundations of behavior. In Part Three the more practical results of the biological adaptations at the psychological level are presented. In Part Four, certain aspects of Mental Hygiene, not taken up in other parts of the book, are considered.

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No. 6

Original Articles.

SEVERE CRUSHING INJURIES TO THE KNEE JOINT*.

W. F. Smith, M. D., Little Rock.

Death quickly following a severe and extensive crushing injury to the knee in three cases treated during a short space of time suggested the question as to why an injury to this particular region is attended with a greater fatality than is manifested in an injury either above or below the knee.

An eminent railway surgeon, with over thirty years of experience, stated that he never saw any but a fatal termination in injuries of this nature. Death ensues on account of the inability to successfully combat the shock that follows these injuries. The subject will be considered as follows:

1. What is traumatic shock?
2. Why does shock follow crushing injuries to the knee joint?
3. How may we combat the effects of this shock?

1. Briefly speaking traumatic shock may be described as a condition of reflex depression of the vital centers occurring after severe injuries, which depressions may range from that of slight faintness to a vital decrease in functional activity from which there is no reaction and death ensues.

The dilated pupils reacting slowly to light and shade; the pallor of the skin and lips; the cold and clammy condition of the skin; irregularity in the heart's action and respiration with, perhaps, nausea and vomiting, all point to a vasomotor paralysis of reflex origin from the peripheral nerves.

According to Crile's kinetic theory the essential lesions of shock are in the brain cells and are caused by the conversion of the body energy stored in the brain cells into a kinetic force at the expense of certain chemical compounds stored in the cells.

Muscular effort, as in running, brings about a depletion of the vital force as evidenced by physical exhaustion. Hemorrhage, loss of sleep or any toxic agent will bring about a similar change. When the expenditure of vital force is due to traumatic stimuli alone, especially if the stimuli are strong and the expenditure of energy is rapid, the condition of shock ensues with the characteristic changes in the Purkinje cells.

2. Why should there be such a degree of shock following a crushing injury to the knee?

The knee is the largest joint in the body with the largest spread of synovial membrane and a consequent greater sensitive nerve fiber distribution. Briefly described the nervous system consists of two parts: First, the sensory neurone which takes up the stimulus received upon the skin or other sensory surface and by means of its process (or nerve fiber) conveys such impulse from the periphery toward the center aggregation of nerve cells that commonly lie in the vicinity of the body axis along what is functionally known as the centripetal or afferent fiber. Now this impression is transferred to the second element, the motor neurone which in response sends out the impulse originating within the cell body (nerve cell) along the process (nerve fiber) known as the centrifugal or efferent fiber to the muscle cell, which causes contraction.

There is, however, a much greater complexity in consequence of the additional neurones by which the afferent impulses are distributed to nerve cells situated, not only in the immediate vicinity of the first neurone,

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

but at different and distant connections. It is one of these mechanisms, the motor mechanism in particular, which through its phylogenetic association with injury of the individual, is responsible for the discharge of energy represented by shock.

The injuries under consideration also involve the popliteal space and nerves. The branches of the internal and external popliteal nerves gathering up and transmitting all the attending afferent sensations, then joining into the thick cable represented by the great sciatic nerve and shooting its high voltage impulse into the cord through the sacral plexus having contact at the fourth and fifth lumbar and the first, second and third sacral vertebrae and so on to the brain, would mean the depletion of any Purkinje cells, and thus account for the shock.

No shock attends an injury to the muscles of the back. Even the brain may be traumatized without the characteristic cell changes. This is due to the absence of sensitive nerves. The cutting or manipulation of the peritoneum will produce a limited degree of shock; but the simple manipulation without traction causes no pain and consequently no shock for the reason just stated.

3. Shock is cumulative in effect. In the treatment the first consideration is to stop depressing changes in the brain cells and conserve the output of energy. Strychnia is not indicated. It is just as futile to endeavor to combat the shock following trauma with the administration of strychnia as it is to endeavor to relieve strychnine poisoning by producing a trauma.

The effect of morphine is to conserve the output of energy and thus combat the shock. The lowered blood pressure also is productive of exhaustion brain cell changes. A normal saline solution introduced into the circulation is a valuable but limited remedy, especially when there has been much loss of blood. But the use of this remedy is limited, as in a short time this fluid will be escaping through the vessel walls as rapidly as introduced and the abdominal viscera engorged.

In order to combat the vasomotor paralysis it is necessary to introduce into the blood some substance to develop the peripheral resistance. Nothing will meet this better than a direct transfusion of human blood. Adrenalin is a valuable remedy at this stage. Spinal block by producing an anesthesia of the cord

with a 2 per cent Novocain solution introduced into the canal between the third and fourth lumbar vertebrae will, in the opinion of the writer, do more to successfully combat the shock following injuries of the nature under discussion than any other known method. I desire to report the following case:

J. E. K., age 38; brakeman; well nourished; family history and physical examination negative, while in the discharge of his duty as brakeman on February 9th received a crushing injury to the right knee and left leg by falling under truck on a freight car partly loaded with lumber. Both legs passed under the wheels. This accident occurred 79 miles from Little Rock.

He was given temporary aid and morphine, hypodermically, to relieve the pain. Some eight or ten hours following the accident he was admitted to the hospital where shortly thereafter his right leg was amputated in the middle third of the thigh under ether anesthesia. Following this operation 8 c. c. spinal fluid was removed and 7 c. c. of 2 per cent Novocain solution injected into the canal. Nothing at this time was attempted for the injury to the left leg except to apply a temporary dressing. The patient was quickly returned to bed, the foot of the bed lifted and proctoclysis, 2 per cent dextrose solution, 40 drops to the minute, three hours on and three hours off, was instituted. The patient experienced no pain whatsoever from the injuries to his leg after he awakened from the anesthetic.

The effects of the spinal anesthesia continued for about 48 hours. By that time he had recovered from the shock. Some ten days later it was necessary to plate the left tibia. The plate was left on five weeks when it was removed. The patient had a complete restoration of contour and function in the left leg making an uneventful recovery and was discharged from the hospital on April 20th.

I submit for your inspection the lower end of this man's right femur which shows the extent of the crushing injury sustained.

DISCUSSION.

Dr. A. E. Chace, of Texarkana: All these crushing injuries of the knee-joint are looked upon, I think, by all surgeons as among the most difficult cases, and the more likely to lead to fatal results, than any others we have to deal with; certainly in that portion of the body.

There are several theories in regard to shock, and Dr. Smith has very accurately stated one

of them. The Professor of Physiology at Harvard believes that most, if not all, of these cases of shock are due to fat embolism and that the resulting paralysis of the vasomotor system results from fat embolism. How he works it out I don't know, but the fact remains that, no matter what theory we have as to the cause of the paralysis, the paralysis results in lowering of the blood pressure, the main element in shock. I believe one reason why Dr. Smith got such a good result was that the operation wasn't done too soon after the injury; because we do know if we can get the systolic blood pressure up to 120 before the operation is done, before the patient is mauled, then the results are always better. I think if all of us would bear in mind that one factor, and watch our patients' blood pressure, when they are in profound shock, and don't maul them until the blood pressure goes up to 120, we will get better results.

Dr. Earle H. Hunt, of Clarksville: Some years ago I heard the doctor read a similar paper and I have thought of it and quoted it lots of times. I had the pleasure of seeing Dr. Smith operate on this poor fellow on February 9th. The doctor was very modest in his report. The blood supply was completely cut off. That was the reason for the amputation. From the lower third there was no blood flowing down there at all, completely blocked. The vessels had been so injured that no blood got down there, and profound shock resulted. Amputation was indicated. I have no doubt that's the only thing that saved this patient. In fact, I hadn't heard of the patient from February 9th until yesterday, when I asked the doctor when he died and was told that the patient was still living. I think the doctor and the patient deserve a great deal of credit.

Dr. G. A. Warren, Black Rock: About ten years ago I think I was going to a medical society meeting. At any rate I was at Hoxie. I was local surgeon of the Frisco road. Some one told me that there was a negro injured in the colored waiting room. I went to see him to give him what aid I could. He had been beating his way under the train, riding the rods, and the train stopped at the crossing at Hoxie. His attempt to get from under the train was unsuccessful. The wheels of ten or twelve cars ran over both limbs. Both knees were crushed into a pulp. I never removed his clothing. I saw that he was under a very severe shock, and I saw that his circulation was very much interfered with. I had some other negroes bring him some water, and asked them why they hadn't done something for him, for he had been injured two or three hours before. They gave no excuses. But when I began to sympathize with the negro, the shock seemed to get worse and in a minute he died. I afterward found he hadn't lost so much blood—not sufficient to weaken the heart. I think it was Dr. Smith that said or someone was telling us that it was the injuries to the knees that caused the severe shock and resulting death.

There was another case I had on the Frisco road. I had amputated one leg, and was amputating the other when he died on the table. I always thought that the doctor who was assisting me and who did the second amputation, and who was using the tourniquet—I was giving the anesthetic at the time—allowed air to pass in. But the man died instantly. And that was soon after the injury. The shock was very, very great. I

had my doubts as to whether the shock had killed him or not.

A boy ten or twelve years old at Portia on the Frisco road was run over by a train. He was thrown under the wheels and both limbs including the right knee were crushed. That boy went into considerable shock. Six or seven hours after that we did a double amputation of the thighs at the lower third. The boy's pulse was 160. We gave him normal salt solution into the bowels and also gave him morphine hypodermatically. It looked like a hopeless case. By the time we were through with the operation, the boy's pulse had slowed down to less than 100, and his condition of shock was disappearing. Whether the anesthetic had anything to do with it or not, I could not say. I thought probably the normal salt solution did it, together with the morphine.

But a peculiar thing, which I will relate in passing, which does not have anything to do with the paper, the boy is living today. He is walking around on the stumps, which are of equal length. I thought possibly he would wear artificial limbs, but he cannot. To see that boy walking around, you would think he was in a hole. He is a good cotton hoer and picks cotton all right, but he cannot plow. He can't keep up with the team. He can't use his feet, of course, in riding a plow. But the case didn't die, and the right knee was crushed into a pulp. Why he didn't get that profound shock, I don't know. This case was reported to the Frisco Medical Association, but never to this Society. That is just one of the three cases I have had to deal with that got well. The other two died; one without an operation and the other during the operation. (Applause.)

Dr. Smith, in response: I thank the doctors for their discussion of the paper. I have nothing further to say.

Book Reviews.

The Surgical Clinics of North America (Issued serially, one number every other month). Volume III, Number 4 (Chicago Number, August, 1923). 287 pages. Per Clinic year (February, 1923, to December, 1923), Paper, \$12.00 net; Cloth, \$16.00 net. Philadelphia and London; W. B. Saunders Company.

The August Number represents the Chicago Clinics. One of the interesting articles we wish to refer to is by Dr. Herman L. Kretschmer, Presbyterian Hospital. The subject is "Pyelography." One of the most valuable diagnostic aids in urology. He gives a historic review, solutions used, technic, dangers—to the kidney itself; to the patient. Congenital anomalies, demonstrable by pyelography. Other urologic conditions in which pyelography is of value.

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The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

HEALTH HIGH IDEAL OF RED CROSS.

The American Red Cross, in announcing its Seventh Roll Call, to be held from Armistice Day to Thanksgiving, has placed health preservation and disease prevention high in its ideal of service.

The following existing Red Cross activities have been approved by a committee of distinguished American medical men among whom are Dr. Thomas S. Cullen, of Johns Hopkins, Baltimore; U. S. Surgeon Hugh S. Cummings, of Washington, D. C.; Dr. Franklin H. Martin, of Chicago, and Dr. G. M. Piersol, of Philadelphia.

1. The organization of classes in Home Hygiene and Care of the Sick.
2. The organization of classes in Nutrition.
3. Organization of classes in First Aid and Life-Saving.
4. The health phases of the Junior Red Cross program, such as (a) the development of personal health habits; (b) participation in a school health program; (c) participation in community health programs.
5. The enrollment of qualified nurses under the Nursing Service.
6. The organized development of Public Health Nursing in rural and semi-rural communities.
7. Assistance in the development and standardization of public health nurses through loans, scholarships, etc.
8. The development of machinery for the co-ordination at one central point of the work of various local health agencies.
9. Co-operation on a national scale with such organizations as the National Health Council for the purpose of furthering the co-ordination of voluntary public health activities.

A dollar subscribed to the Red Cross during the Roll Call will help to continue these services.

ONE BOARD THE ONLY REMEDY.

For years, prior to the assembling of successive Legislatures, the Journal of the Arkansas Medical Society has urged the abolition of the present separate Medical Examining Boards and the establishment of a single

board of examiners. In addition, for several sessions of the Legislature, the Legislative Committee of the Arkansas Medical Society has worked faithfully to have such a bill adopted. In its arguments in favor of a single board the Journal has, over and over again, set forth the fact that Arkansas has been the dumping ground for the alleged graduates of the very same Kansas City alleged medical college now under fire, and has pointed out that such graduates are not recognized in the very State in which that same doctor factory has flourished, nor are they allowed to practice therein.

It is needless to repeat here the recent developments which have occupied so much space in the daily newspapers that all who read newspapers at all are familiar with the facts. Not only have diplomas been brazenly sold to men utterly unfit, but the fraud has involved in addition to "professors" in the Kansas City doctor factory, educators who, for a cash consideration, have given bogus high school diplomas to students never graduated, in order that they might meet the requirements of medical examining boards. The St. Louis Star, which made the exposure, has done a great work for the profession and for the welfare of the general public which has had imposed upon it practitioners utterly unfit to practice. As an example and absolute proof of the frauds practiced, it may be mentioned that the reporter assigned to the work of exposure was able to buy a diploma for a consideration of a few hundred dollars.

But the efforts of the Journal in the past, and the work of the Society's Legislative Committee have gone for naught.

It is impossible to make our lawmakers understand the peril of having such bogus doctors imposed on the community, perhaps through their ignorance to hasten death rather than aid the afflicted. It was equally impossible to impress them with the fact that a single board instead of separate boards would eliminate the evil. Too many of our lawmakers took the narrow view that the proposition was urged in the selfish interest of one school of medicine and they held that all schools should have individual boards. They seemed to be impressed with the idea that the one school wanted a monopoly of all practice. Of course, it is not necessary to point out to readers of the Journal how unfounded are such narrow views. Graduates

of reputable schools would not be refused license to practice, provided they were duly qualified and had met the necessary educational requirements.

But with Governor Thos. C. McRae duly impressed with the advantages of a single board there is hope that the next Legislature will act in accordance with his recommendations, and that the separate board system will be abolished. It is also to be fervently hoped that success will attend the work started by the Pulaski County Medical Society to trace the history of some practitioners, already licensed to practice, with a view to having their license revoked if found unfit and who obtained license under false pretenses.

FEE SPLITTING.

R. J. Calcote, M. D., Little Rock.

It is a sad commentary on our noble profession that this evil, fee splitting, exists. A few days ago the subject was brought very forcibly to our attention. Dr. _____ from a nearby suburban city gave us the following very interesting detail:

A few days previous he was called to see Mrs. _____ who had acute appendicitis. He so advised the family and recommended that the patient be taken to Little Rock for operation. This was agreed upon and he returned to his home to make preparation to take the patient to the hospital. Before he could complete arrangements to make the trip, the patient's husband called and said it had been decided that they would wait another day before going to the hospital. The following day the doctor called to ascertain if the patient was ready to make the trip, only to learn that the patient had already come to Little Rock to a hospital other than the one he had recommended and accompanied by a physician other than himself. While the doctor does not know that the secret of this trade was that of a division of fees, it is daily routine in this hospital and its very organization is dependent upon this evil for its support.

The division of fees, or fee-splitting, is the buying and selling of patients. The practice exists in various forms, but the most usual form is as follows: A person is attacked, we will say, with an acute disease. The family physician is called in and makes a diagnosis in which surgical interference is indicated.

The patient is referred to a surgeon for operation; the surgeon operates, collects a fee, and sends one-third or half of the fee to the physician. The patient knows nothing about this last transaction. Naturally any physician who will resort to this reprehensible practice for his own selfish greed and gain is going to sell his patients to the highest bidder, and if Dr. A pays fifty per cent commission on cases, whereas Dr. B only pays twenty-five per cent, Dr. A gets his preferred work.

The evils of fee-splitting are many, but chiefly it makes for incompetent surgery, unnecessary surgical operations and, by introducing dishonesty into medical practice, it lowers the entire medical profession in the estimate of the public. It makes for incompetent surgery because the surgeon who is party to the practice gets his cases on the basis of the commission he offers, and as a rule the more incompetent he is, the larger his commissions. It makes for unnecessary surgical operations because the physicians and surgeons who resort to this practice often have their attention more centered on the fee than the patient and make surgical diagnosis without adequate study, and the result is unnecessary surgery. That the practice is dishonest is apparent to the most illiterate. The fee-splitter usually poses before his patient as having received little or no fee for his services, and he tells him he refers him to a most competent surgeon, when he knows well enough, that if he, the physician, were to be operated upon, he would select another surgeon.

The patient has the right to know the truth in the matter of why he is referred to one surgeon in preference to another. He has a right to expect that his trusted family physician will not take advantage of his misfortune for the sake of his own gain, and that he will deal with him in accordance with the principles of the Golden Rule. Any doctor who will speculate with the misfortunes of the sick; who will place his dealings with the unfortunate sick and afflicted on a commercial basis; who, forgetting the high ideals of our calling, inclines to commercialism, neglect and selfishness, and barter his patients for a mess of pottage—such a doctor is unworthy of either confidence or recognition and deserves to be subjected to the limelight of open publicity. Fee-splitting stands condemned on every hand as pernicious, uncharitable, unethical, unprofessional and illegal.

We would like to add a few words to this in behalf of the family physician. Although this practice depends on selfishness and a desire on his part for a fee, we believe it is often the case that he is prompted to do this because he is underpaid and often not paid at all for his part in surgical cases. He is called to see a case, gives it careful study and medical treatment, and finally makes a surgical diagnosis and advises surgery. The surgeon operates and treats the patient through a short period of convalescence and passes him back to the family physician, who often has to treat him through a long period of convalescence. During the course of the patient's illness the family physician makes many visits and gives valuable aid and comfort and at usual prices his fee amounts to a fair sum. It is usually the practice of the patient to pay the surgeon first and often he goes to no inconsiderable ends to do this, while the family doctor has to wait and receive his in small installments, and sometimes not at all. We believe the surgeon can be a great deal of help to the family physician in those cases where the patient is not able or does not pay complete fees promptly for both medical and surgical treatment.

It is the secret division of fees that is dishonest and unjust, and if a fee is divided with the full knowledge of the patient that his family doctor is receiving a sum for his study and care of the case, nothing could be more justifiable. We believe that if this practice was openly and frankly resorted to it would help in a large measure to remedy this evil.

Personal and News Items.

Dr. Thad Cothorn of Jonesboro has returned from Chicago.

Dr. Rufus Martin of Warren is attending the Mayo Clinic at Rochester, Minn.

Dr. T. J. Stout and daughter of Brinkley recently visited in Little Rock.

Dr. and Mrs. J. M. Sheppard of El Dorado visited in Little Rock this month.

Dr. and Mrs. J. L. Jones of Searey visited in Little Rock last month.

Dr. J. S. Southard is now associated with his father, Dr. J. D. Southard of Fort Smith.

Dr. C. J. Mareh, Medical Director Home Life Insurance Company, Fordyce, visited in Little Rock this month.

Dr. and Mrs. Glen Holmes have returned from New Orleans where Dr. Holmes attended the surgical clinics.

Dr. and Mrs. G. C. Webb of Atkins announce the arrival of their little son, James, born October 1, 1923.

Dr. M. L. Patton, who has been connected with the Missouri Pacific Railroad, has opened offices in the Donaghey Building, Little Rock.

Dr. and Mrs. D. W. Goldstein and their daughter of Fort Smith recently visited relatives in Little Rock.

Dedication of St. Edward's Hospital, a new \$200,000 building, was held October 17, at Fort Smith.

Dr. L. Kirby, Harrison; Dr. F. O. Mahoney, El Dorado; Dr. A. S. J. Collins, Monticello, called on the editor of the Journal this month.

Dr. St. Cloud Cooper of Fort Smith was elected Vice-President of the Medical Association of the Southwest at its annual meeting October 11, in Kansas City.

Dr. J. B. Dooley, Little Rock, has returned from New Orleans, having completed a special course in diseases of the eye, ear, nose and throat.

The eighth annual conference of the health officers of Arkansas met in Little Rock November 1-2. Dr. L. Kirby of Harrison presided.

The eighth annual clinical week of the American Congress on Internal Medicine will be held in St. Louis, week of February 17, 1924.

Dr. W. V. Laws, Hot Springs, was elected first vice-president of the Mississippi Valley Medical Association at their meeting last month in Hot Springs.

At the recent meeting of the State Board of Health, Dr. O. L. Williamson of Marianna was elected president and Dr. C. W. Garrison, Little Rock, was re-elected State Health Officer.

Dr. A. A. Hughes of New Gascony has sold his practice to Dr. Jno. P. Ferguson of Sweden. Dr. Hughes is now in New York taking a special course in diseases of the eye, ear, nose and throat.

Dr. A. R. Stover, Little Rock, was appointed acting dean of the School of Medicine, University of Arkansas, succeeding Dr. Morgan Smith who recently resigned dean of the School.

The Tri-State Medical Society (Texas, Arkansas and Louisiana) will hold its annual meeting in Texarkana on the first Wednesday and Thursday in December. Dr. Frank H. Walke, Secretary, Shreveport, Louisiana.

Every physician in Arkansas should consider it a duty to encourage his friends and patients to subscribe for and read *HYGEIA*. This is the name of a journal of individual and community health founded and published by the American Medical Association, Chicago. Price, \$3.00 a year.

REMOVALS.

Dr. C. B. Capel, Sheridan to Pine Bluff.

Dr. C. W. Brown, Jonesboro to Weiner.

Dr. F. L. Purnell, Georgetown to Kensett.

Dr. F. P. Hardy, Rosebud to McRae.

Dr. L. Gardner, Russellville to Fort Smith.

Dr. C. W. Jones, Wheatley to Little Rock.

Dr. R. E. Oliver, Newcastle to Widener.

Dr. H. C. Sims, Blytheville to Burdette.

Dr. V. S. Gearcy, Malvern to St. Anthony, S. D.

Dr. C. T. McWilliams, Village to Magnolia.

Dr. L. M. Warden, Huntington to Center Hill.

Dr. J. H. Stidham, Jonesboro to Blytheville.

Dr. J. P. Delaney, Lake Village to Little Rock.

Dr. A. A. Hughes, New Gascony to New York, N. Y.

Dr. K. B. Huffman, Bentonville to Tulsa, Okla.

Dr. R. H. Guthrie, Smithville to Little Rock.

Obituary.

DR. JOHN LUTHER KELLY—Dr. John Luther Kelly of Hope, age 55, died September 22, 1923.

DR. J. L. BURNS—Dr. Joseph L. Burns of Jonesboro, age 77, died in a Memphis sanitarium October 14, 1923. He leaves a wife, two sons and two daughters. Funeral was conducted from First Baptist Church, Jonesboro.

County Societies.

WHITE COUNTY.

(Reported by Sam J. Allbright, Sec.)

The White County Medical Society met at the courthouse in Searey, Thursday, October 4, at 2:00 p. m.

Present: Burge, Little, Hudgins, Warden, Hassell, Harrison, Jelks, Jones, Moore, Tapscott and Allbright. Dr. R. W. Toler was a visitor.

On motion of Dr. Moore the Society unanimously endorsed Hon. Sam Sloan for State Treasurer.

A paper on "Oral Hygiene" was read by Dr. R. W. Toler. It was discussed by Dr. Jelks and others.

On motion of Dr. Harrison a vote of thanks was extended Dr. Toler for presenting the paper.

Dr. L. M. Warden reported two cases, which were generally discussed.

Drs. Woodyard, Purnell, Tapscott, Peeler and W. H. Abington were placed on the program for the next meeting. Subjects to be announced later.

The Society adjourned to meet in Searey, January 3, 1924.



You and your support —both are needed

THE battle against tuberculosis is *your* battle. The organized fight against consumption protects you, and makes your community a cleaner, more healthful place to live in.

You support the war upon tuberculosis when you buy Christmas Seals. The life-saving campaign of the Tuberculosis Association is largely financed by the sale of these seals. Protect yourself and help others Buy Christmas Seals.

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THE
NATIONAL, STATE, AND LOCAL TUBERCULOSIS
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Abstracts.

DENTAL IMPACTIONS AND THEIR SEQUELAE

The majority of impacted teeth cause no pathologic changes or symptoms that can be detected by clinical or roentgenographic examination. E. F. Tholen, Los Angeles (*Journal A. M. A.*, Nov. 17, 1923), reports a series of eighty-four cases which gave rise to numerous serious and puzzling conditions that required the removal of the teeth and of the pathologic reactions to which they gave rise. In forty-eight of these cases the conditions were due to infection; in twenty-three, the symptoms could best be explained by the theory of reflex disturbances due to nerve pressure. In thirteen cases, the patients were seen because of postoperative complications. In the group of forty-eight cases there were nine in which local infection of the overhanging soft tissue or gingival involvements resulted in osteomyelitis, periostitis and necrosis. In one of these there was a temporal abscess that was cured by free drainage, and another resulted in infection of the temporomandibular joint, with necrosis of the temporal bone. This case terminated fatally. In thirty-five instances there were evidences of rarefaction of bone about the teeth, and the patients were referred because of some general infection. This included arthritis, neuritis, iritis, gastric lesions and asthenia. In two cases in which maxillary sinusitis complicated upper third molar impactions, lodged high in the antrum wall, the removal of the teeth and intranasal drainage of the antrums effected a cure. One patient with chronic lymphadenitis of the right submaxillary group was cured by the removal of an impacted lower third molar.

CHEMICAL SOLVENTS USED IN DISSOLVING FOREIGN SUBSTANCES IN THE URINARY BLADDER.

Foreign bodies, such as gum, beeswax, paraffin and urethral pencils, are soluble in the urinary bladder, obviating the necessity of painful instrumentation or of operative procedures. The degree of safety with which these chemicals can be used in the urinary bladder is apparent. For paraffin, the best dissolvents are xylene, pure benzene, high test gasoline and benzin; for gum, high test gasoline, benzin, xylene and gasoline; for beeswax, benzene, xylene, high test gasoline

and ordinary gasoline; for urethral pencils, pure benzene, a commercial form of "automobile" benzene (benzol) and benzin. The presence of water or of urine neither aids nor interferes with the action of the solvent. With the establishment of definite time limits for dissolving a known quantity of paraffin, gum, beeswax or urethral pencils in vitro and in vivo, Harold L. Morris and Clarence I. Owen, Detroit (*Journal A. M. A.*, Nov. 17, 1923), found that cases of this kind are amenable to office treatment and observations, thereby obviating the necessity of hospitalization. The observations of other workers have been retained for hours at a time. This, the authors feel, is unnecessary; however, no permanent damage would result from repeated injections.

THE TIME ELEMENT IN GALLSTONE FORMATION.

Angus L. Cameron, Minneapolis (*Journal A. M. A.*, Nov. 17, 1923), reports a case in which it was positively determined that numerous and well-developed calculi formed in a human gallbladder within a period of eighty-six days.

ABDOMINAL SURGERY WITHOUT DETACHED PADS AND SPONGES.

The essential feature of H. S. Crossen's St. Louis (*Journal A. M. A.*, Nov. 10, 1923), method is the substitution of a long gauze strip for the ordinary detached sponges, the greater part of the strip being always outside the abdominal cavity. The strip is 10 yards long. Two strips are made by dividing the yard-width of gauze in the center and folding each half longitudinally to six thicknesses. Each strip is therefore 10 yards long, about three inches wide, and has six thicknesses of gauze. For protection and convenience in handling the strip is packed into a small muslin bag, five inches wide and ten inches deep. The end of the strip is stitched to the bottom of the bag, and the strip is then packed into the bag in such a way that it may be pulled out a little at a time, as needed. The filled bags are sterilized and are then ready for use. At operation, the bottom of the bag is clamped or pinned to the abdominal sheet, and the gauze strip is pulled out a little at a time as needed for sponging.

LIST OF MEMBERS

ARKANSAS COUNTY

Dickens, Homer	St. Charles
Fowler, Arthur	Humphrey
Guthrie, O. V.	Almyra
Hawkins, J. E.	DeWitt
John, M. C.	Stuttgart
Lowe, A. M.	Gillett
Lowe, W. W.	Gillett
Lumsden, C. A.	DeWitt
Moorhead, W. H.	Stuttgart
Morphew, L. H.	Stuttgart
Rasco, C. W.	DeWitt
Riley, H. C.	Bayou Meto
Swindler, E. B.	Stuttgart
Whitehead, R. H.	Gillett
Winkler, E. H.	DeWitt
Winters, H. B.	DeWitt

ASHLEY COUNTY

Barnes, L. C.	Hamburg
Cockerham, H. E.	Portland
Cone, A. E.	Portland
Ervin, E. D.	Jerome
George, B. F.	Hamburg
Hawkins, M. C.	Parkdale
Holliday, B. F.	Parkdale
Johnson, J. H.	Crossett
Miller, E. L.	Crossett
Norman, W. S.	Hamburg
Parker, J. L.	Snyder
Setzler, G. H.	Crossett
Simpson, J. W.	Hamburg
Spivey, C. E.	Crossett
White, E. O.	Rawls
Williams, R. G.	Parkdale
Woods, J. T.	Fountain Hill

BAXTER COUNTY

Morrow, J. J.	Cotter
Tipton, J. T.	Mountain Home
Tipton, W. C.	Mountain Home

BENTON COUNTY

Buffington, G. H.	Gravette
Cargile, Chas. H.	Bentonville
Clegg, J. T.	Siloam Springs
Clemmer, J. L.	Gentry
Cox, W. T.	Sulphur Springs
Crockett, C. S.	Robinson
Curry, W. J.	Rogers
Doty, H. W.	Rogers
Duckworth, F. M.	Siloam Springs
Eubanks, F. G.	Decatur
Green, L. O.	Pea Ridge
Harrison, A. J.	Lowell
Highfill, E. J.	Cave Springs
Hodges, Guv.	Rogers
Hodges, T. E.	Rogers
Horton, C. W.	Hiwassee
Huffman, K. B.	Tulsa, Okla.
Hughes, G. A.	Siloam Springs
Hurley, C. E.	Bentonville
Ireland, W. W.	Gentry
Koobs, H. J. G.	Rogers
Lindsey, J. H.	Bentonville
Love, Geo. M.	Rogers
McHenry, R. R.	Seligman, Mo.
McHenry, W. A.	Rogers
McNeil, Clyde L.	Rogers
Maxwell, R. L.	Siloam Springs
Montgomery, Chas. C.	Duenweg, Mo.
Moore, W. A.	Rogers
Perkins, C. F.	Rogers
Pickens, W. A.	Bentonville
Powell, J. T.	Mavsville
Ramsev, T. C.	Gentry
Rice, C. A.	Rogers
Rice, T. M.	Avoca
Scott, L. L.	Siloam Springs
Smiley, J. L.	Siloam Springs
Steele, R. W.	Decatur
Thompson, J. S.	Gravette
Wilson, C. S.	Gentry

BOONE COUNTY

Baines, Swartz	Bergman
Blackwood, J. C.	Harrison
Brand, W. M.	Harrison
Bruce, R. B.	Harrison
Crebs, R. S.	Olvey
Evans, D. E.	Harrison
Fowler, J. H.	Harrison
Fowler, T. P.	Harrison
Gladden, J. G.	Western Grove
Jackson, G. B.	Omaha

BOONE COUNTY—Continued

Johnson, J. J.	Harrison
Kirby, F. B.	Harrison
Kirby, L.	Harrison
McCurry, D. K.	Alpena Pass
Owens, D. L.	Harrison
Poynor, Wm. H.	Harrison
Routh, C. M.	Harrison
Sexton, J. Walter	Mt. Judea
Wallace, J. M.	Harrison

BRADLEY COUNTY

Barnett, S. H.	St. Louis
Ellis, W. S.	Hermitage
Fike, W. T.	Warren
Gannaway, C. E.	Warren
Hartsell, W. L.	Warren
Martin, C. N.	Warren
Martin, Rufus	Warren
Reasons, W. B.	Hermitage
Roark, W. N.	Hermitage
Wilson, Geo. L.	Jersey

CALHOUN COUNTY

Black, C. T.	Thornton
Jones, E. T.	Hampton
Rhine, T. E.	Thornton

CARROLL COUNTY

Bohannon, J. H.	Berryville
Bolton, J. F.	Eureka Springs
Butt, W. A.	Green Forest
Carter, A. L.	Berryville
Donaldson, C. W.	Green Forest
Harvey, W. A.	Berryville
Huntington, R. H.	Eureka Springs
John, J. F.	Eureka Springs
Pace, Henry	Eureka Springs
Poynor, E. E.	Green Forest
Sisco, C. P.	Springdale

CHICOT COUNTY

Baker, E.	Dermott
Barlow, E. E.	Dermott
Clark, B. C.	Lake Village
Douglas, S. W.	Eudora
Easterling, W. W.	Chicot
Hutson, W. J.	Eudora
McGehee, E. P.	Lake Village
Parr, H. H.	Eudora
Rigdon, F. E.	Readland
Wilson, J. S.	Lake Village

CLARK COUNTY

Bremer, J. P.	Point Cedar
Kirkham, Z. L.	Okolona
McLain, C. W.	Gurdon
Moore, J. S.	Arkadelphia
Moore, W. M.	Arkadelphia
Ross, H. A.	Arkadelphia
Wright, Chas. E.	Graysonia

CLAY COUNTY

Cunning, I. H.	Knobel
Hiller, J. P.	Pollard
Jones, F. H.	Piggott
Latimer, N. J.	Corning
Lynch, Richard C.	Success
McGuire, J. E.	Piggott
Newkirk, C. H.	Corning
Richardson, N. C.	Datto
Simpson, A. R.	Corning
Smith, R. O.	Biggers
Thornton, E. W.	Piggott
Walker, J. F.	Success

CLEBURNE COUNTY

Crosby, Cyrus F.	Heber Springs
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CLEVELAND COUNTY

Blankenship, A. G.	Booneville
Hamilton, A. J.	Rison
Johnson, R. L.	R. I. Rison
Johnson, S. C.	Kingsland
Leali, Chas.	Kingsland
McMurtrey, J. S.	Rison
Sadler, H. D.	Rison
Wilson, H. O.	Rison

COLUMBIA COUNTY

Baker, J. J.	Magnolia
Cooksey, W. P.	Magnolia
Davis, J. H.	Fouke, Miss.

COLUMBIA COUNTY—Continued

Horn, W. H.	Taylor
Hunt, W. J.	Magnolia
Jordan, T. S.	Magnolia
Keith, A. W.	McKamie
Kitchens, H. M.	Waldo
Longino, H. E.	Magnolia
McDonald, A. J.	Spring Hill, La.
McWilliams, C. T.	Magnolia
Stevens, C. D.	Magnolia
Walker, J. C.	Emerson

CONWAY COUNTY

Bradley, A. R.	Morrilton
Bruce, W. H.	Morrilton
Colay, J. H.	Cleveland
Fleming, J. T.	Springfield
Goatcher, A. L.	Plumerville
Ha'brook, J. F.	Plumerville
Hardison, T. W.	Morrilton
Jackson, J. H.	Center Ridge
Jones, W. E.	Morrilton
Logan, B. C.	Morrilton
Matthews, E. L.	Morrilton
Matthews, J. M.	Morrilton
Mobley, H. E.	Morrilton

CRAIGHEAD COUNTY

Alcott, Geo. B.	Weiner
Altman, J. T.	Jonesboro
Baird, J. L.	Tyrnza
Bates, Chas. A.	Lake City
Brown, C. W.	Weiner
Cothern, Thad	Jonesboro
Ellis, Ira W.	Monette
Grady, N. H.	Monette
Hale, C. S.	Cisco, Texas
Haltom, W. C.	Jonesboro
Handley, E. L.	Truman
Harrison, B. L.	Truman
Horn, L. D.	Egypt
Horner, E. J.	Jonesboro
Howell, J. C.	Nettleton
Jackson, W. W.	Jonesboro
Lutterloh, Chas. H.	Jonesboro
Lutterloh, P. W.	Jonesboro
McAdams, H. H.	Jonesboro
McCracken, C. P.	Jonesboro
McDaniel, E. C.	Tyrnza
McGinnis, Thos. J.	Sedgwick
Myers, N. P.	Truman
Nisbett, Frank	Brookland
Overstreet, W. C.	Jonesboro
Paullus, George E.	Marked Tree
Ramsey, J. W.	Jonesboro
Ratliff, R. W.	Jonesboro
Scott, A. G.	Jonesboro
Smith, O. V.	Bay
Smith, W. H.	Bono
Stroud, H. A.	Jonesboro
Turner, T. J.	Monette
Verser, W. W.	Harrisburg
Waddell, Gracey A.	Jonesboro
Walker, B. F.	Jonesboro
Willett, R. H.	Jonesboro

CRAWFORD COUNTY

Bennett, B. L.	R. F. D. Van Buren
Blakemore, J. E.	Van Buren
Bourland, O. M.	Van Buren
Dibrell, M. S.	Van Buren
Emerson, A. G.	Chester
Grant, S. C.	Mulberry
Hardin, Nina V.	R. 3. Van Buren
Kirkland, Saml. D.	Van Buren
Parchman, W. L.	Van Buren
Reves, Wm. R.	Alma
Savery, H. W.	Van Buren
Trice, J. B.	Van Buren
Wigley, J. A.	Mulberry

CRITTENDEN COUNTY

Hare, T. S.	Crawfordsville
Henry, Hugh B.	Hulbert
Hicks, W. P.	Earle
Lewis, A. L.	Bruins
McVay, L. C.	Marion
Parker, A. C.	Clarksdale
Stevenson, B. M.	Crawfordsville
Watson, H. S.	Earle

CROSS COUNTY

Barner, W. B.	Wynne
Griffin, J. L.	Vanndale
Griffin, Walter L.	Cherry Valley

CROSS COUNTY—Continued

Hare, Jacob L.	Wynne
Lipsey, L. H.	Wynne
Longest, Ruffin	Wynne
McKie, J. D.	Wynne
McKie, W. H.	Wynne
Stewart, Thos. J.	Wynne
Utley, Vernon L.	Parkin
Wilson, Thos.	Wynne

DALLAS COUNTY

Atkinson, H. H.	Fordyce
Cheatham, H. A.	Princeton
Harrison, F. E.	Fordyce
Hope, O. W.	Fordyce
March, C. J.	Fordyce
Smith, J. Y.	Sparkman
Taylor, J. E. M.	Sparkman
Wilson, J. F.	Dalark

DESHA COUNTY

Applewhite, R. E.	Watson
Cheairs, D. T.	Tillar
Cheairs, J. T.	Tillar
DeClark, W. H.	McGehee
Francis, J. W.	Arkansas City
Furbish, L. P.	McGehee
Gibbs, Biscoe	Pendleton
Isom, A.	Dumas
Kimbro, C. H.	Tillar
MacCammon, Vernon	Arkansas City
Price, C. C.	Dumas
Smith, H. T.	McGehee
Watts, J. D.	Dumas
White, R. F.	McGehee

DREW COUNTY

Baker, J. P.	Jerome
Butler, E. D.	Wilmar
Collins, A. S. J.	Monticello
Cotham, E. R.	Monticello
Duckworth, F. L.	Monticello
Gates, S. M.	Monticello
Kimbro, S. O.	Monticello
Lisenbee, A. M.	Dalark
O'Connor, F. J.	Monticello
Pope, M. Y.	Monticello
Smith, R. N.	Collins

FAULKNER COUNTY

Baugh, W. F.	Conway
Benefield, C. E.	Conway
Brown, Geo. S.	Conway
Burnett, M. C.	Wooster
Cureton, H. E.	Conway
Dawson, R. L.	Wooster
Dickerson, C. H.	Conway
Downs, J. H.	Vilonia
Fraser, N. E.	Conway
Harrod, George	Conway
Henderson, G. L.	Conway
Huddleston, G. D.	Conway
Ingram, E. M.	Holland
McCollum, I. N.	Conway
McDonald, W. T.	Vilonia
McMahan, J. E.	Conway
Munn, J. B.	Vilonia
Muse, J. M.	Conway
Watson, T. C.	Mount Vernon
West, W. J.	El Paso
Westerfield, J. S.	Conway

FRANKLIN COUNTY

Akin, W. F.	Branch
Allen, Chas. S.	Altus
Blackburn, E. W.	Ozark
Blakeley, T. B.	Coal Hill
Bollinger, W. H.	Charleston
Campbell, C. J.	Cecil
Davis, J. W.	Jethro
Douglass, Thos.	Ozark
Gammill, S. P.	Branch
Gibbons, W. H.	Ozark
Gray, E. M.	Charleston
Hansberry, A. J.	Ozark
Higgins, J. H.	Ozark
Hodges, E. F.	Branch
Horner, W. M.	Alix
Hyden, L. N.	Hunt
King, W. J.	Houston, Texas
Northum, A. C.	Charleston
Porter, W. C.	Ozark
Post, J. L.	Altus
Turner, H. H.	Ozark
Vaught, W. E.	Denning
Williams, H. F.	Ozark

GARLAND COUNTY

Black, T. N.	Hot Springs
Biggs, Orvis	Hot Springs
Brewer, H. W.	Hot Springs
Brown, P. Z.	Hot Springs
Browning, E. R.	Hot Springs
Bruce, G. C.	Hot Springs
Casada, B. F.	Hot Springs
Chesnutt, Jas. H.	Hot Springs
Clardy, Floyd	Hot Springs
Coffey, G. C.	Hot Springs
Collings, H. P.	Hot Springs
Connell, W. H.	Hot Springs
Dake, Chas.	Hot Springs
Davis, R. G.	Hot Springs
Deaderick, W. H.	Hot Springs
DeWoody, L. C.	Hot Springs
Diederich, V. P.	Hot Springs
Drennen, D. Edward	Hot Springs
Drennen, C. Travis	Hot Springs
Eckel, G. M.	Hot Springs
Ellis, L. R.	Hot Springs
Ellsworth, E. H.	Hot Springs
Fletcher, Geo. B.	Hot Springs
Freeman, T. N.	Hot Springs
Garratt, C. E.	Hot Springs
Greene, J. L.	Hot Springs
Hallman, V. H.	Hot Springs
Jackson, W. W.	Hot Springs
Jarrell, Foster	Hot Springs
Jelks, J. T.	Hot Springs
Jennings, C. W.	Hot Springs
King, O. H.	Hot Springs
Llugh, Walter G.	Hot Springs
Knoefel, W. R.	Hot Springs
Lautman, M. F.	Hot Springs
Laws, W. V.	Hot Springs
Lee, D. C.	Hot Springs
Martin, L. G.	Hot Springs
Merritt, J. F.	Hot Springs
McConnell, C. A.	Hot Springs
McKenzie, E. M.	Hot Springs
Minor, J. C.	Hot Springs
Mobbs, Bert	Lahaina, Hawaii
Moss, Chas. S.	Hot Springs
Nims, C. H.	Hot Springs
Pate, C. N.	Hot Springs
Porter, Wm. F.	Hot Springs
Proctor, J. M.	Hot Springs
Purdum, E. A.	Hot Springs
Rowland, J. F.	Hot Springs
Sanders, T. E.	Hot Springs
Scully, F. J.	Hot Springs
Sharp, S. B.	Hot Springs
Shaw, J. B.	Hot Springs
Short, Z. N.	Hot Springs
Simpson, W. F.	Hot Springs
Smith, J. H.	Hot Springs
Smith, Oliver A.	Hot Springs
Smith, W. K.	Hot Springs
Snider, W. L.	Hot Springs
Steele, S. B.	Hot Springs
Stell, J. S.	Hot Springs
Stough, D. B.	Hot Springs
Strachan, J. B.	Hot Springs
Sullivan, A. G.	Hot Springs
Tarkington, Grayson E.	Hot Springs
Thompson, Ernest L.	Hot Springs
Thompson Loyd	Hot Springs
Thompson, M. G.	Hot Springs
Tillotson, C. H.	Hot Springs
Tribble, A. H.	Hot Springs
Vaughan, P. T.	Hot Springs
Wade, H. King	Hot Springs
Waldrop, J. G.	Hot Springs
Weil, S. D.	Hot Springs
Wilkins, J. S.	Hot Springs
Williams, F. M.	Hot Springs
Winegar, E. F.	Hot Springs
Wootton, W. T.	Hot Springs

GRANT COUNTY

Blakely, M. M.	Sheridan
Butler, J. L.	Sheridan
Cole, C. F.	Prattsville
Jones, J. E.	Sheridan
Kelly, O. R.	Sheridan
Paxton, Robert L.	Leola
Sheppard, Irvin	Belfast
Whitehead, S. H.	Sheridan

GREENE COUNTY

Baker, E. S.	Paragould
Bovd, D. L.	R. 6 Paragould
Bridges, G. P.	Paragould
Castleberry, F. L.	Paragould
Cohen, Geo.	Piggott
Dickson, P. L.	Paragould
Dillman, James A.	Paragould
Ellington, W. E.	Paragould

GREENE COUNTY—Continued

Ellis, B. E.	Greenway
Haley, R. J.	Paragould
Hardesty, C. A.	Paragould
Hopkins, G. T.	Paragould
Huddins, J. J.	Marmaduke
Hutcherson, R. L.	Delaplain
Lamb, J. H.	Paragould
Majors, Wm. M.	Lafe
McKenzie, J. G.	Paragould
Scott, F. M.	Paragould
Wilson, Olive	Paragould

HEMPSTEAD COUNTY

Allison, Walter G.	Hope
Autrey, J. R.	Columbus
Cannon, G. E.	Hope
Carrigan, P. B.	Hope
Garner, W. M.	Hope
Lile, L. M.	Hope
Robins, W. F.	Ozan
Russell, M. V.	Hope
Saner, W. F.	Hope
Smith, Don	Hope
Weaver, J. H.	Hope
Weaver, Robt. E.	Smackover

HOT SPRING COUNTY

Bramlitt, E. T.	Malvern
Cox, J. A.	Donaldson
Henry, C. A.	Malvern
Hodges, W. G.	Malvern
McCray, E. H.	Malvern
Norton, J. M.	Friendship
Phillips, R. Y.	Malvern
Prickett, Chas.	Malvern
Reeve, B. B.	Malvern
Williams, J. M.	Malvern

HOWARD COUNTY

Dildy, E. V.	Nashville
Gibson, W. M.	Nashville
Gosnell, C. E.	Bingen
Hale, A. W.	Nashville
Hopkins, J. S.	Nashville
Hutchinson, D. A.	Nashville
Roberts, J. L.	Murfreesboro
Toland, W. H.	Nashville

INDEPENDENCE COUNTY

Baldwin, W. S.	Cotter
Bone, O. L.	Newark
Burge, H. G.	Sulphur Rock
Craig, M. S.	Batesville
Dorr, R. C.	Batesville
Evans, L. T.	Mt. Pleasant
Gray, C. C.	Batesville
Gray, F. A.	Batesville
Huskey, J. M.	Moorefield
Jeffrey, Paul H.	Bethesda
Johnston, O. J. T.	Batesville
Kennerly, J. H.	Batesville
King, K. W.	Floral
Laman, Thos.	Cave City
Lawrence, W. B.	Batesville
McAdams, V. D.	Cord
Moore, W. P.	Little Rock
Pascoe, V. L.	Newark
Reves, L. E.	Salado
Robertson, S. N.	Sulphur Rock
Rodman, T. N.	Newark
Roe, J. B.	Newark
Smith, H. H.	Calico Rock
Weathers, J. L.	Salem
Woods, O. S.	Sidney
Woods, T. J.	Evening Shade
Wyatt, W. A.	Rosie

JACKSON COUNTY

Best, A. L.	Newport
Causey, G. A.	Swifton
Elton, A. M.	Newport
Erwin, I. H.	Newport
Gray, C. R.	Newport
Harris, M. L.	Newport
Jamison, O. A.	Tuckerman
Kimberlin, K. K.	Tuckerman
Loftin, Wm. R.	Grubbs
McCurry, J. H.	Grubbs
Owens, M. B.	Rommel
Stallings, Walker E.	Newport
Stephens, G. K.	Newport
Thomason, Wm. T.	Newport
Walker, H. O.	Newport
Watson, E. L.	Newport
Wilson, W. F.	Elmo

JEFFERSON COUNTY

Blankenship, W. H.	Pine Bluff
Breathwit, Wm.	Pine Bluff
Capel, C. B.	Pine Bluff
Caruthers, C. K.	Pine Bluff
Cornelius, A. F.	Pine Bluff
Crump, J. F.	Pine Bluff
Chavis, W. M.	Pine Bluff
Davidson, J. S.	Pine Bluff
Gill, J. F.	Pine Bluff
Glover, C. A.	Pine Bluff
Hankinson, O. C.	Pine Bluff
Higinbotham, C. J.	Pine Bluff
Hughes, A. A.	New York, N. Y.
Jenkins, J. S.	Pine Bluff
John, J. W.	Pine Bluff
Lemons, J. M.	Pine Bluff
Lowe, W. T.	Pine Bluff
Luck, B. D.	Pine Bluff
McMullen, E. C.	Pine Bluff
Palmer, J. T.	Pine Bluff
Pittman, W. G.	Pine Bluff
Scales, J. W.	Pine Bluff
Shelton, M. A.	Wabbaseka
Spillyards, J. S.	Pine Bluff
Troupe, A. W.	Pine Bluff
Vines, C. L.	Pine Bluff
Williams, Harry E.	Pine Bluff
Woods, R. P.	Altheimer
Woodul, T. W.	Pine Bluff

JOHNSON COUNTY

Barger, M. I.	Lamar
Basham, O.	Clarksville
Boen, A. L.	Clarksville
Boyer, H. L.	Hartman
Bradley, John F.	Lamar
Burgess, M. E.	Lamar
Graves, S. M.	Mt. Levi
Gray, L. C.	Clarksville
Hardgrave, G. L.	Clarksville
Hays, Annie	Clarksville
Hunt, E. H.	Clarksville
Hunt, Wm. R.	Clarksville
Kolb, J. S.	Clarksville
Manley, R. N.	Clarksville
Mooney, J. D.	Knoxville
Pierce, S. C.	Hagarville

LAFAYETTE COUNTY

Armstrong, R. L.	Lewisville
Barham, O. T.	Lewisville
Baker, F. E.	Stamps
Benton, J. B.	Stamps
Hammond, P. L.	Bradley
Hoover, A. S.	Stamps
Jack, J. J.	Buckner
Kitchens, W. L.	Stamps
McKnight, J. F.	Bradley
Nichols, D. C.	Stamps
Strange, L. T.	Stamps
Youmans, F. W.	Lewisville

LAWRENCE COUNTY

Allen, Marshall	Walnut Ridge
Ball, C. C.	Ravenden
Clay, A. J.	Hoxie
Guthrie, T. C.	Smithville
Hatcher, Wright W.	Imboden
Henderson, A. G.	Imboden
Hughes, J. C.	Hoxie
Johnston, Wm.	Hardy
Land, J. C.	Walnut Ridge
McCarroll, H. R.	Walnut Ridge
Morris, J. W.	Pima, Ariz.
Neece, T. C.	Walnut Ridge
Robinson, W. J.	Portia
Stephens, J. M.	Minturn
Swindle, J. C.	Walnut Ridge
Thomas, Earl	Hoxie
Townsend, C. C.	Walnut Ridge
Warren, G. A.	Black Rock
Watkins, G. Max	Walnut Ridge

LEE COUNTY

Bean, W. B.	Marianna
Beaty, W. S.	R. 1. Aubrey
Bogart, H. D.	Marianna
Chaffin, C. W.	Moro
Crawford, W. S.	Marianna
Lewis, J. F.	Marianna
Longlev, W. W.	Marianna
McLendon, Mac	Marianna
Russwurm, S. C.	LaGrange
Wall, E. D.	Marianna
White, H. L.	Rondo
Williamson, O. L.	Marianna
Wilsford, A. L.	Moro

LINCOLN COUNTY

Colquitt, S. W.	Grady
Corney, R. B.	Little Rock
Dixon, Chas. W.	Douglas
Thiolliere, A. C.	Varner
Wood, G. C.	Grady

LITTLE RIVER COUNTY

Bonnette, J. V.	Foreman
Castile, Herman	Foreman
Johnson, J. J.	Foreman
Marr, S. C.	Ashdown
Nixon, A. M.	Arden
Peavy, J. L.	Foreman
Phillips, Paul H.	Ashdown
Ringgold, J. W.	Ashdown
Vaughan, W. E.	Richmond
York, W. W.	Ashdown

LOGAN COUNTY

Bennett, W. H.	Paris
Harkins, R. A.	Ratcliff
Smith, A. M.	Paris
Smith, J. J.	Paris

LONOKE COUNTY

Beaty, S. S.	England
Benton, T. E.	Lonoke
Brewer, John F.	Kerr
Butler, O. C.	England
Callahan, A. E.	Carlisle
Corn, F. A.	Lonoke
Crowgey, W. B.	Scott
Cunning, John R.	Lonoke
Granberry, G. W.	Little Rock
Harris, E. H.	Coy
Kelly, M. D.	Lonoke
Murchison, A. J.	Keo
Newsom, W. H.	Humnoke
Proctor, D. P.	Carlisle
Rice, Roy	Scott
Scruggs, G. W.	Humnoke
Smith H. B.	Keo
Southall, S. A.	Lonoke
Stover, Grover C.	England
Street, H. N.	Lonoke
Taylor, Ira S.	McCool, Miss
Thibault, H.	Scott
Ward, O. D.	England
Watson, A. C.	England
Wells, J. B.	Scott

MADISON COUNTY

Acree, W. E.	Huntsville
Callen, L. H.	Huntsville
Hill, N. J.	Hindsville
Youngblood, F.	Huntsville

MARION COUNTY

Adams, A. V.	Yellville
Keeter, P. H.	Flippin
McKay, R. D.	Yellville
Thompson, J. I.	Yellville
Weast, L. M.	Yellville

MILLER COUNTY

Beck, E. L.	Texarkana
Chace, A. E.	Texarkana
Collum, S. A.	Texarkana
Dale, J. R.	Texarkana
Dale, R. R.	Texarkana
Fuller, T. E.	Texarkana
Grant, R. L.	Texarkana
Hays, Geo. A.	Texarkana
Hibbitts, Wm.	Texarkana
Hunt, Preston	Texarkana
Kelly, K. M.	Texarkana
Kittrell, T. F.	Texarkana
Kosminsky, L. J.	Texarkana
Lanier, L. H.	Texarkana
Laws, S. C.	Texarkana
Lee, A. G.	Texarkana
Mann, R. H. T.	Texarkana
Middleton, B. C.	Texarkana
Murry, H. E.	Texarkana
Portwood, O. F.	Texarkana
Smiley, H. H.	Texarkana
Smith, J. K.	Texarkana
Webster, H. R.	Texarkana

MISSISSIPPI COUNTY

Barksdale, Oscar	Wilson
Crawford, H. F.	Wilson
Ellis, W. B.	Keiser
Hamner, J. H.	Marie
Harwell, C. M.	Osceola
Hill, E. V.	Blytheville

MISSISSIPPI COUNTY—Continued

Hosey, N. R.	Joiner
Howton, O.	Memphis, Tenn.
Hudson, T. F.	Luxora
Johnson, I. R.	Blytheville
Johnson, R. L.	Bassett
Lowry, S. A.	Luxora
Luckett, J. A.	Dell
McRae, Wm.	Blytheville
McCall, W. S.	Blytheville
Nall, Robt. P.	Armored
Owen, W. M.	Armored
Saliba, J. A.	Blytheville
Sanders, J. F.	Blytheville
Sims, H. C.	Burdette
Smith, F. D.	Blytheville
Stevens, C. C.	Blytheville
Stidham, J. H.	Blytheville
Tidwell, J. L.	Dell
Wilson, C. E.	Blytheville

MONROE COUNTY

Boswell, W. L.	Clarendon
Bradford, T. B.	Brinkley
Bradley, W. T.	Monroe
Darnall, Ernest	Holly Grove
Houston, Matt. F.	Clarendon
McKnight, C. H.	Brinkley
McKnight, E. D.	Brinkley
Miller, J. C.	Blackton
Murphy, F. T.	Brinkley
Murphy, N. E.	Clarendon
Phipps, J. H.	Clarendon
Stout, L. H.	Brinkley
Stout, T. J.	Brinkley
Terry, P. E.	Blackton
Thomas, P. E., Sr.	Clarendon

MONTGOMERY COUNTY

Freeman, W. D.	Mount Ida
Holmes, P. S.	Mount Ida
McLean, J. H.	Caddo Gap
Purtle, C. C.	Womble
Robbins, J. D.	Oden

NEVADA COUNTY

Buchanan, A. S.	Prescott
Buchanan, G. A.	Prescott
Chastain, J. S.	Prescott
Cox, J. E.	Smackover
Gee, S. B.	Prescott
Hesterly, J. B.	Prescott
Hesterly, S. J.	Prescott
Hirst, O. G.	Prescott
McDaniel, T. O.	Boughton
Mendenhall, T. J.	Rosston
Nelms, Chas. F.	Laneburg
Pool, W. B. H.	Bodcaw
Reeder, A. A.	Emmet
Rice, W. W.	Prescott
Whaley, E. S.	Reeder

OUACHITA COUNTY

Byrd, E. J.	Millville
Farly, C. S.	Camden
Henry, H. H.	Eagle Mills
Jameson, J. B.	Camden
Mahan, J. M.	Bearden
McGill, S. D.	Camden
Powell, B. V.	Camden
Purifoy, L. L.	Chidester
Rinehart, J. S.	Camden
Thompson, H. F.	Bearden
Word, N. S.	Camden

PERRY COUNTY

Jones, R. A.	Houston
McNeil, M. P.	Bigelow
Reiff, W. L.	Perryville

PHILLIPS COUNTY

Altman, G. G.	Helena
Bean, J. W.	Marvell
Brown, E. T.	Lexa
Butts, J. W.	Helena
Cox, Allen E.	Helena
Cox, Aris W.	Helena
Eubanks, G. W.	Wabash
Ellis, J. B.	Helena
Fink, M.	Helena
Henry, Morris	Helena
King, J. A.	Mellwood
King, W. C.	Helena
Kultgen, Edward	Elaine
Lee, H. W. A.	West Helena
Leslie, T. E.	Emma, Ky.
Nichols, J. W.	Helena

PHILLIPS COUNTY—Continued

Orr, W. R.	Helena
Parker, Orle	Elaine
Rightor, H. H.	Helena
Russwurm, W. C.	Helena
Trotter, C. H.	Helena

POLK COUNTY

Connally, D. W.	Hatfield
Hawkins, B. H.	Mena
Hilton, J. G.	Mena
King, E. R.	Alikchi, Okla.
Mullins, F. C.	Grannis
Nelson, C. E.	Cove
Vundiver, W. C.	Mena
Watkins, P. R.	Mena
Young, Thos. B.	Cove

POPE COUNTY

Berryman, L. D.	Russellville
Campbell, J. M.	Russellville
Drummond, H. S.	Russellville
Haney, A. C.	Russellville
Jones, G. W.	Moreland
Linton, A. C.	Hector
Montgomery, W. A.	Atkins
Smith, R. L.	Russellville
Stanford, J. M.	Russellville
Webb, G. C.	Atkins
Wright, Jerome	Russellville

PRAIRIE COUNTY

Adams, Edward	Devall's Bluff
Crow, L. M.	Des Arc
Ellis, C. S.	Hazen
Gilliam, J. C.	Des Arc
Hipolite, F. A.	Devall's Bluff
Kitley, J. R., R.F.D. 1	Stuttgart
Lynn, J. R.	Hazen
Parker, Luke	Devall's Bluff
Porter, T. G.	Hazen

PULASKI COUNTY

Arkebauer, C. A.	Little Rock
Bailey, W. E.	Little Rock
Barlow, M. J.	North Little Rock
Barrier, L. F.	Little Rock
Barrett, Jos. E.	Little Rock
Bathurst, W. R.	Little Rock
Bentley, C. E.	Little Rock
Blakely, R. M.	Little Rock
Bond, S. P.	Little Rock
Bradley, Frances Sage	Little Rock
Browning, H. W.	Little Rock
Calcote, R. J.	Little Rock
Caldwell, Robert	Little Rock
Carruth, O. A.	Little Rock
Carruthers, F. W.	Little Rock
Chesnutt, C. R.	Little Rock
Crawford, J. B.	Little Rock
Crawford, S. R.	Little Rock
Coon, A. B.	Little Rock
Cunningham, J. C.	Little Rock
Daly, M. G.	Little Rock
Darnall, R. F.	Little Rock
Davis, E. N.	Little Rock
Davis, J. C.	Little Rock
Day, E. O.	Little Rock
Delaney, J. P.	Little Rock
Dibrell, J. L.	Little Rock
Dibrell, J. R.	Little Rock
Dickinson, M. F.	Little Rock
Dooley, J. B.	Little Rock
Dunaway, W. C.	Little Rock
Eubanks, R. M.	Little Rock
Fly, T. M.	Little Rock
Freedman, Theo	Little Rock
French, F. L.	Little Rock
Fulmer, S. C.	Little Rock
Gann, Dewell, Jr.	Little Rock
Garrison, C. W.	Little Rock
Gray, Oscar	Little Rock
Gray, W. E.	Little Rock
Guthrie, R. H.	Little Rock
Hardeman, D. R.	Little Rock
Harris, Robt. P.	Little Rock
Higgins, Homer A.	Little Rock
Hinkle, S. B.	Little Rock
Hodges, E. E.	Little Rock
Hoge, S. F.	Little Rock
Holmes, G. M.	Little Rock
Howell, A. R.	North Little Rock
Howell, Stacy C.	Little Rock
Hudson, E. M.	Little Rock
Humphreys, Lincoln	Tutuila, Samoa
Hughes, W. B.	Little Rock
Hurtle, F. E.	Little Rock
Hyatt, D. T.	Little Rock
Jackson, Geo. F.	Little Rock
Jewell, I. H.	Paris
Jobe, A. L.	Little Rock
Jones, C. W.	Little Rock

PULASKI COUNTY—Continued

Jones, H. F. H.	Little Rock
Jones, W. E.	Little Rock
Johnston, E. E.	Little Rock
Judd, O. K.	Little Rock
Junkin, S. P.	R. 4, Little Rock
Kirby, A. C.	Little Rock
Kirk, C. C.	Little Rock
Kory, R. C.	Little Rock
Kriesel, W. A.	Little Rock
Lamh, W. A.	Little Rock
Law, Ralph A.	Little Rock
Lenow, Jas. H.	Little Rock
Lewis, Geo. V.	Little Rock
McCaskill, M. E.	Little Rock
McCormack, G. A.	Little Rock
McCurry, W. T.	Little Rock
McGill, A. G.	Little Rock
McKinney, A. T.	North Little Rock
McRae, W. M.	Little Rock
Mahoney, P. L.	Little Rock
Manglesdorf, W. F.	Little Rock
Matthews, W. M.	Little Rock
May, C. B.	Little Rock
May, W. S.	Little Rock
Meek, E.	Little Rock
Miller, W. H.	Little Rock
Moore, R. B.	Little Rock
Murphey, Pat	Little Rock
Oates, Charles E.	Little Rock
Ogden, M. D.	Little Rock
Parmley, L. V.	Little Rock
Patterson, R. Q.	Little Rock
Patton, M. L.	Little Rock
Prothro, E. W.	Little Rock
Prothro, H.	North Little Rock
Pemberton, E. M.	Little Rock
Pettus, C. S.	Little Rock
Ponder, E. T.	Little Rock
Reagan, G. W.	Little Rock
Reagan, L. D.	Little Rock
Reed, C. C.	Little Rock
Rhinehart, B. A.	Little Rock
Rhinehart, D. A.	Little Rock
Richardson, W. R.	Little Rock
Riegler, N. W.	Little Rock
Robinson, F. C.	Little Rock
Rose, W. D.	Little Rock
Runyan, J. P.	Little Rock
Sadler, W. L.	Little Rock
Sanderlin, J. H.	Little Rock
Saxon, R. L.	Little Rock
Scarborough, J. I.	Little Rock
Scott, C. V.	Little Rock
Scott, Homer	Little Rock
Scroggins, J. H.	Little Rock
Sheppard, J. P.	Little Rock
Shinault, C. R.	Little Rock
Shipp, A. C.	Little Rock
Smith, Morgan	Little Rock
Smith, W. F.	Little Rock
Snodgrass, W. A.	Little Rock
Stover, A. R.	Little Rock
Strauss, A. W.	Little Rock
Summers, J. A.	North Little Rock
Switzer, D. M.	North Little Rock
Thames, John H.	Little Rock
Thomas, P. E., Jr.	Little Rock
Thompson, G. D.	Little Rock
Vaughan, Milton	Little Rock
Villars, H. F.	Little Rock
Vinsonhaler, F.	Little Rock
Wadley, Ben L.	Little Rock
Wagley, P. V.	Pontiac, Mich.
Walt, D. C.	Little Rock
Walton, Chas. R.	Little Rock
Watkins, Anderson	Little Rock
Watkins, John G.	Little Rock
Wayman, A. K.	Little Rock
Wayne, J. R.	Little Rock
Wayne, W. D.	Little Rock
Webb, V. T.	Little Rock
White, E. H.	Little Rock
White, L. W.	Little Rock
Wilkes, E. H.	Little Rock
Witt, Ben M.	Little Rock
Witt, C. E.	Little Rock
York, M. N.	Manning, Texas
Zell, A. M.	Little Rock

RANDOLPH COUNTY

Brown, J. W.	Pocahontas
Hamil, W. E.	Pocahontas
Hughes, W. E.	Pocahontas
Hull, H. B.	Mammoth Spring
Johnson, T. Z.	Walnut Ridge
Johnson, R. R.	Walnut Ridge
Loftis, Jno. R.	Maynard
Pace, L. R.	Pocahontas
Phillips, W. R.	Mvrtle, Mo.
Ruff, Horace E.	Pocahontas
Throgmorton, H. L.	Pocahontas

SALINE COUNTY

Buckley, E. A.	Bauxite
Bullington, T. E.	Lonsdale
Burks, J. A.	Traskwood
Davis, W. S.	Owensville
Gann, Dewell, Sr.	Benton
Kelly, Warren	Benton
Phillips, J. M.	Benton
Steed, C. J.	Alexander
Wallin, Lorc	Benton
Walton, J. W.	Benton
Ward, W. W.	Alexander
Wright, J. D.	Mabelvale

SCOTT COUNTY

Bevill, C.	Waldron
Crow, M. T.	Waldron
Duncan, F. R.	Waldron
Duncan, L. D.	Waldron

SEARCY COUNTY

Baker, A. S.	Snowball
Cotton, J. O.	Leslie
Daniel, S. G.	Marshall
Dickens, G. W.	Leslie
Fendley, E. G.	Leslie
Heard, W. W.	Watts
Henley, J. A.	St. Joe
Hollabaugh, C. B.	Leslie
Melton, A. S.	Marshall
Moore, W. T.	Leslie
Roherts, E. E.	Gilbert
Rogers, W. F.	St. Joe
Wood, E. W.	Marshall

SEBASTIAN COUNTY

Benefield, J. H.	Huntington
Blair, A. A.	Fort Smith
Brooksher, S. L.	Fort Smith
Brooksher, W. R.	Fort Smith
Brooksher, W. R., Jr.	Fort Smith
Brown, E. J.	Fort Smith
Buckley, J. H.	Fort Smith
Bungart, C. S.	Fort Smith
Cooper, St. Cloud	Fort Smith
Davenport, C. P.	Hartford
Dorente, D. R.	Fort Smith
Dorsey, H. C.	Fort Smith
Eberle, J. G.	Fort Smith
Eberle, Walter G.	Fort Smith
Epler, E. G.	Fort Smith
Foltz, Jas. A.	Fort Smith
Foster, M. E.	Fort Smith
Freer, B. W.	Fort Smith
Gardner, Lvcurgus	Fort Smith
Goldstein, D. W.	Fort Smith
Hall, C. W.	Greenwood
Hampson, J. K.	Fort Smith
Harvey, John H.	Fort Smith
Hoge, A. F.	Fort Smith
Holt, C. S.	Fort Smith
Johnson, Hugh	Fort Smith
Johnson, J. E.	Fort Smith
Jones, E. B.	Hartford
King, H. C.	Fort Smith
Klingensmith, W. R.	Fort Smith
McCormack, N. D.	Fort Smith
McKelvey, A. A.	Dallas, Texas
Means, C. S.	Jenny Lind
Moulton, E. C.	Fort Smith
Moulton, H.	Fort Smith
Parks, R. F.	Fort Smith
Riddler, P. A.	Fort Smith
Rose, Willis F.	Fort Smith
Ryan, I. A.	Fort Smith
Sims, H. J.	Fort Smith
Smith, H. H.	Fort Smith
Southard, J. D.	Fort Smith
Stuhbs, S. P.	Fort Smith
Thompson, H. B.	Fort Smith
Waltz, M. R.	Fort Smith
Ware, B. L.	Greenwood
Wilson, Cons P.	Fort Smith
Wolfermann, S. J.	Fort Smith
Woods, G. G.	Fort Smith
Wyatt, R. B.	Fort Smith

SEVIER COUNTY

Anderson, J. B.	Ben Lomond
Archer, C. A.	DeQueen
Clingan, A. J.	Lockesburg
Dickinson, R. C.	Horatio
Graves, J. C.	Lockesburg
Guthrey, J. E.	Ben Lomond
Hendricks, J. S.	DeQueen
Hendrix, B. E.	Gillham
Hopkins, R. L.	DeQueen
Kennedy, J. R.	DeQueen
Kitchens, C. E.	DeQueen
Norwood, M. L.	Lockesburg

ST. FRANCIS COUNTY

Bogart, J. A.	Forrest City
Caldwell, A. B.	Caldwell
McCown, N. C.	Forrest City
Oliver, R. E.	Widener
Powell, Clyde V.	Round Pond
Proctor, F. L.	Forrest City
Purnell, R. L.	Madison
Rush, J. O.	Forrest City
Summerford, T. D.	Widener

UNION COUNTY

Brewer, J. M.	El Dorado
Burns, R. P.	El Dorado
Bush, T. J.	El Dorado
Carter, C. J.	El Dorado
Cathey, A. D.	El Dorado
Center, W. B.	El Dorado
Colvin, A. R.	Strong
Elkins, W. N.	Junction City
Fairris, J. H.	New London
Falvey, J. C.	El Dorado
Fewkes, J. M.	Shreveport, La.
George, I. M.	El Dorado
Harper, W. L.	Junction City
Irby, F. L.	Wesson
McCall, D.	Lawson
McGraw, S. J.	El Dorado
McKinney, A. B.	Cargile
Mahnney, F. O.	El Dorado
Mayfield, A. M.	El Dorado
Mavfield, H. F.	Huttig
Miles, W. L.	El Dorado
Mitchell, J. G.	El Dorado
Moore, J. A.	El Dorado
Morgan, T. M.	Wesson
Murphy, Geo. D.	El Dorado
Murphy, G. W. T.	Strong
Niehuss, H. H.	El Dorado
Nolan, J. W.	El Dorado
Purifoy, L. L.	El Dorado
Sheppard, J. M.	El Dorado
Sheriff, J. P.	Calion

UNION COUNTY—Continued

Shudde, W. J.	El Dorado
Slaughter, J. W.	El Dorado
Vines, F. P.	El Dorado
Wharton, J. B.	El Dorado
White, D. E.	El Dorado
Wozencraft, W. L.	El Dorado

WASHINGTON COUNTY

Batchelder, F. P.	Farmington
Brewster, J. H.	Prairie Grove
Callen, C. B.	Fayetteville
Cannon, J. S.	West Fork
Cooper, T. L.	Elm Springs
Curry, Wm.	Cane Hill
Ellis, E. F.	Fayetteville
Gregg, A. S.	Fayetteville
Harr, H. T.	Fayetteville
Hathcock, P. L.	Fayetteville
Henry, R. T.	Springdale
Layson, Z. C.	Fayetteville
McCormick, E. G.	Prairie Grove
Martin, J. E.	Springdale
Miller, Otey	Fayetteville
Mock, W. H.	Prairie Grove
Moore, A. I.	Fayetteville
Morrow, F. R.	Fayetteville
Paddock, C. B.	Fayetteville
Southworth, Jas. R.	Fayetteville
Swift, Chas. E.	Elkins
Walker, J. W.	Fayetteville
Wood, H. D.	Fayetteville

WHITE COUNTY

Ahington, E. H.	Beebe
Abington, W. H.	Beebe
Allbright, S. J.	Searcy
Brewer, T. E.	Antioch
Burge, T. G.	Judsonia
Clark, W. A.	Bald Knob
Hardy, F. P.	McRae
Harrison, A. G.	Searcy

WHITE COUNTY—Continued

Hassell, J. W.	Searcy
Henderson, T. W.	Judsonia
Hudgins, A. H.	Griffithville
Jelks, J. M.	Searcy
Jones, J. L.	Searcy
Little, R. L.	Judsonia
McAdams, J. C.	Pangburn
Moore, L. E.	Searcy
Peeler, C. M.	Pangburn
Purnell, F. L.	Kensett
Runyan, J. R.	Searcy
Sloan, Dewey D.	Beebe
Sloan, J. R.	Garner
Tapscott, S. T., Jr.	Searcy
Warden, L. M.	Center Hill
Woodyard, W. H. L.	Judsonia

WOODRUFF COUNTY

Biles, L. E.	Augusta
Brewer, E. F.	Augusta
Brewster, B.	McCrory
Brown, E. B.	Cotton Plant
Dungan, C. E.	Augusta
Fraser, R. L.	McCrory
Gephart, R. T.	Cotton Plant
Maguire, F. C.	Gregory
Morris, J. W.	De View
Smith, R. N.	Augusta
West, J. H.	Grays

YELL COUNTY

Cowger, Robt.	Danville
Cowger, Thos.	Danville
Dooley, J. A.	Belleville
Grace, John	Belleville
Hart, J. D.	Dardanelle
Linzy, C. B.	Plainview
Love, L. E.	Dardanelle
Montgomery, H. L.	Gravelly
Pool, Thos. J.	Danville
Sweet, F. R.	Dardanelle
Worsham, M. A.	Centerville

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BLINDNESS FROM THE USE OF METHYL ALCOHOL, WITH THE REPORT OF A CASE.*

H. Moulton, M. D.

E. C. Moulton, M. D.,
Fort Smith.

Cases of blindness from the use of wood alcohol have been recorded only during the last twenty-five years, with one exception. That exception was a case recorded by Mengin in 1879¹, and is probably the first case on record. The senior author of this paper observed his first case in 1892². At that time only three cases were on record, including the one by Mengin. Our second case occurred in October, 1900³. By that time twenty-seven cases had been recorded. Since then many hundreds have been described in medical literature. Accounts of many others have appeared in the daily press. Doubtless many have escaped notice altogether. It will be observed that these cases began to appear and to increase in number as the wave of prohibition spread, limiting the use of beverages containing ethyl alcohol. Uninformed persons drank anything they could get. Wood or methyl alcohol was so deodorized as to smell and taste like ethyl alcohol but still remained as toxic as before. This was used in making bay rum, extracts of ginger, etc. In this form wood alcohol has been the cause of many cases of death and blindness. One teaspoonful of wood alcohol has caused blindness, one ounce has caused death. A number of cases of blindness have been caused by inhaling the fumes of wood alcohol by workmen using it

mixed with varnish when working inside vats or tightly closed rooms. The use of it for bathing the skin has caused toxic amblyopia. Some persons are more susceptible than others. There would seem to be an idiosyncrasy, but the percentage of susceptible persons is very high.

The first case recorded by Dr. H. Moulton was one of five men, who drank each, about half a pint of methyl alcohol. All were made very sick. Two died. One recovered, but was blind. Two recovered without any defects. Such is about the average. According to Holden⁴, Birch Hirschfield⁵ and others, this poison attacks and actually destroys ganglion cells and nerve fibers. It seems to have a selective action on nerve tissue, especially the more highly organized elements such as are found in the retina and optic nerve.

In non-fatal cases, blindness comes on usually on the second or third day, after the symptoms of general intoxication have disappeared. The ophthalmoscopic picture is at first that of optic neuritis. Within a few days, even less than a week, it is one of atrophy. Probably 95 per cent remain permanently blind or practically so. The only cases recovering useful vision with rare exceptions are those treated vigorously at once by eliminating the poison before it has time to destroy the ganglion cells and nerve fibers of the retina and optic nerve. This treatment consists of emetics or the stomach pump, if seen soon enough, purgatives pilocarpine sweats, turkish baths, alkalies, iodides, etc. Spinal puncture for drainage has been done apparently with benefit⁶. Unfortunately but few of these cases come early enough for such treatment to be of avail. The late cases are generally considered to be incurable unless a method recently adopted by Dr. G. F. Suker of Chicago⁷ proves effective. Dr. Suker reports three cases treated by Neo-Salvarsan.

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

All were late cases. All were serologically negative to the Wassermann test and all were greatly benefited. Just why Neo-Salvarsan should be used or be beneficial I do not know. Fuchs, in the last edition of his textbook mentions it, but offers no explanation of how it is supposed to act. It may be the arsenic acts to stimulate the nerve elements, or it may neutralize the alcohol or some of the products of its oxidization. A recent case of ours, in which it was used, seems to justify the claims of Dr. Suker.

He was a man, aged 52 years, a glass worker.

On January 20, 1923, from 5:00 p. m. to 11:00 p. m., he drank probably a pint of denatured alcohol of disagreeable taste sold by a drug store for cleaning purposes. He was very sick during the next day. On the third day his vision began gradually to fail, until on the fourth day he was totally blind. The county physician, Dr. R. F. Parks, gave him iodides and turkish baths. About February 1st he could see a little, but in a few days not so well. I saw him first on February 5th. The pupils were five millimeters in diameter without reaction. Media clear; nerve heads pale, lamina cribrosa invisible, and the retinal vessels moderately contracted. The vision of R. E. was equal to counting fingers at six inches (1-200). The field was contracted, with scotomata. The vision of L. E. was equal to distinguishing movements of hand in temporal field only. The blood Wassermann was negative. There was no history of lues. February 16th the condition was the same. The patient consented to take Neo-Salvarsan but refused a spinal puncture. 0.3 gm. Neo-Salvarsan was given, intravenously by Dr. D. W. Goldstein. On February 19th the vision of R. E. was 5-200, L. E. 1-200. On February 21st a second dose of Neo-Salvarsan was given. Five days later vision was, R. E. 12-200, L. E. 6-200. Two other injections were given of 0.6 gm. each one week apart. On March 8th, vision was, R. E. 20-200, L. E. 6-200. The fields of vision were much improved and the scotomata had mostly disappeared. Color vision was absent. The nerve heads were less pale, and the retinal vessels had regained approximately their normal size. The pupils were 3 mm. in size and reacted normally to light.

The patient did not present himself again for observation for two weeks. On March 22d

his landlady telephoned that he had disappeared the day before. She said his vision had further improved and that he was going about everywhere without hesitation. On March 24th she telephoned again that the patient was in jail. Officers stated that they had found him drunk and unconscious near a cemetery on the night of the 22d. The patient said he had secured from a drug store and drank another pint of denatured alcohol on the 22d. This debauch did not cause so much loss of vision as did the other. He still has vision of 9-200 in the R. E. and 1-200 in the L. E., but with return of defects in the field of vision. The nerve heads were edematous and very much paler. Their borders were obscured. The vessels had become narrower again.

This article is being written on the date of his transfer from the jail to the hospital, so final results can not yet be recorded. He is still able to go about unaided. The salient points are, (1) that he was blind for a month after drinking denatured (wood) alcohol. (2) that the use of Neo-Salvarsan was promptly followed by a return of useful vision which was retained until the end of the second month and which was partially lost only after a second debauchery.

At the date of this writing the condition remains unchanged although he has had additional treatment with intravenous arsphenamine supplemented by spinal drainage.

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DISCUSSION.

Dr. F. Vinsonhaler (Little Rock): I think that is the most touching tribute to the skill of our colleagues that I ever heard of, that a man, after going through what this man went through, to go to work and do the same thing, knowing that his doctor could pull him out. There may be other cases of confidence, but I think this is one indeed.

I read a report of the State Examiners of Pennsylvania in reference to the contraband liquor that has been collected. There were bottles that were marked by the names of James E. Pepper and Haig & Haig, labels that would inspire confi-

dence; but a chemical analysis of all of them revealed that 95 per cent of those so labeled bottles were methyl alcohol, and 95 per cent were made up of 75 per cent of methyl alcohol. That made no difference how they were branded. Looking at it from this point of view, if this be true, the question of methyl alcohol poisoning is a very serious one, because it is present all the time. I have had the opportunity of seeing three cases such as the doctor describes, but unfortunately all of them became blind. The first case that I saw was produced by drinking extract of Jamaica ginger. That was before prohibition days. But it so happened in the town in which the man lived prohibition applied, and he bought some Jamaica ginger and became drunk on it. He was unconscious for over a day, and afterward found that he was blind and couldn't see to get around. So he was brought to me for examination. I remember finding that his pupils were widely dilated and did not react to light, and that the background of the eye, which ordinarily appears red, with the ophthalmoscope gave the impression as though you were looking at a bank of summer clouds. That was caused by the intense edema of the ganglion cell layer of the retina, and the yellow spot or macula which showed up cherry red against this cloudy background. This man remained in that condition for a week, and then that gradually subsided and his sight partially returned. But in two months atrophy of the optic nerve began, of the ganglion cell layer, of the retina, and he became absolutely blind.

Another man was sent to me from Montgomery County, and he was in the beginning of the atrophic stage. I think he had been afflicted for several weeks before I saw him. In that case, I think five men drank of this methyl alcohol, and one died. Another one was still in a serious condition.

The third case that I saw presented nothing unusual, except that I saw it in the atrophic stage, and nothing was of any avail.

I am very much interested in the doctor's description of the action of Neo-Salvarsan. If I were going to guess at something that would do good, I would have guessed at everything else before I would give that, because I have been afraid of the effect of Neo-Salvarsan upon the optic nerve. In certain cases of syphilis I haven't been so reluctant to use it. But that it does good, there is no doubt, from the doctor's paper and from the evidence that we have, and I shall be interested in watching the literature on the subject; and if there is anything that does good, it certainly is a Godsend; because I have never found anything before that had the slightest effect.

I would be interested in hearing the doctor's description of the field of vision, as to whether it is restricted in the periphery or whether there is a scotoma extending from the center to the periphery.

Dr. R. H. T. Mann (Texarkana): I want to thank Dr. Moulton for presenting this most interesting paper to our society. I believe it is his first effort, and we have hardly had a better paper than this one before this society at this meeting. I myself have seen no cases of blindness produced by wood alcohol. I don't know that we possess a better citizenship in the community where I practice, or not, but fortunately for me, I have not seen a case.

Dr. W. T. McCurry (Little Rock): About seven years ago I had the misfortune to see a case of

impaired vision from wood alcohol poisoning. Three barbers drank a quantity of bay rum. Two of them died, and I saw the one who survived. He had just enough vision to get around and discern shadows. I have examined him every six or eight months since that time without noting any improvement. If there is no improvement within a year or so, I think recovery from wood alcohol blindness extremely improbable.

Dr. Moulton (in response): I want to assume a certain amount of modesty, Dr. Vinsonhaler. I should like to accept that confidence on the part of the patient. But it seems that he felt that way. He had once before imbibed some wood alcohol and he awoke with dimmed vision. He didn't know just what he was doing. He decided if he could get hold of some more that he could see better. So he did, and after he drank the second lot his vision returned. What he was doing when he got on this second "stew" was to get hold of some more wood alcohol; he thought if he could get a little more it would stimulate him sufficiently that his sight would come back. So he gave us no credit.

As to the field of vision that he had in his right eye; it was a concentric contraction with a central scotoma. It was complete; the contraction was throughout the periphery. In the left eye he had no vision at all, except in the temporal field; and also in the temporal field there was some peripheral contraction.

SOME UNCOMMON POSTMORTEM FINDINGS.*

S. F. Hogue, M. D., Little Rock.

I hope the title of this paper has stimulated your interest and curiosity sufficiently to excuse the lethargy and fatigue commonly associated with a report not dealing with a living subject. The adage that it is not all of life to live nor death to die, is most applicable in dispelling some of the mysteries of life and death, as revealed by postmortem examinations.

The general run of postmortems, like the general run of clinical entities tend to become routine and uninteresting, narcotizing the spirit of investigation and research, when at a most unexpected moment we are confronted with some very amazing details of the inner and vital structures of the human body. The imposition of certain structures upon certain other structures, the insults of foreign bodies may stimulate potential energies on the part of tissue reaction, which seem well-nigh impossible.

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

A postmortem report is not complete without a brief statement of the clinical picture ere the patient came to die.

The clinical report of this case must be brief because the mental condition of the subject precluded any history of his condition prior to entering the hospital. The clinician made his examination and reached the conclusion that there was a tubercular lesion in the lower anterior portion of the upper lobe of the right lung, with cavity formation. The spleen was enlarged and the patient much emaciated; abdomen negative. In about two weeks after admission patient developed a bilateral lesion in the parotids which broke down and discharged pus. The lesion did not heal but left fistulous sinuses. The nurse records that about two or three weeks before the patient died he awoke one night with a smothering sensation which soon fused into a paroxysm of coughing and at the end of four or five minutes he brought up about a pint of foul-smelling yellowish purulent material. This relieved the oppression and patient felt better. I am unable to give you any further information relative to the clinical picture.

The postmortem was performed at the City Hospital in the presence of the junior class, the resident and visiting doctors, permission being granted by the hospital authorities.

The body was that of an adult white male, 54 years of age, and 68 inches tall. Emaciation showed to the highest extent in all the soft tissues of the body. The musculature and soft tissues of the thigh were so atrophic and shrunken that one could readily span around it with one hand at its largest part. The joints, while normal in contour and appearance, seemed out of proportion to the other structures in that it made them look enlarged. Fine ecchymotic spots showed, especially over the liver area, the left lower quadrant of the abdomen and the forearm. There was no evidence of broken bones anywhere in the osseous framework. There was no evidence of any deformity in either the hands, feet or arms. The body lay flat on the table and straight. Rigor mortis had not developed in that death had occurred but a few hours before. Livor mortis was not in evidence. Inspection of the body showed an old leg ulcer on the left leg which was not entirely healed. There was a discharge from both ears and from a sinus below the mastoid process. There was also a discharge of mucous and slime from the

mouth. Examination of the eyes showed both present and free from macroscopic change. The nose was not deformed but a mucous-like type of slime oozed from it similar to that which oozed from the mouth. The teeth were in an extremely bad condition. The tongue, mouth and throat showed very little improvement of the condition of the teeth. Examination of the ears showed a discharge from both of them. The material was muco-purulent in nature with a tendency to dry up and scab over the auditory meatus. The odor from this discharge was offensive. There was little or no blood in the discharge and no tingeing of green. The openings below and behind the external orifices discharged the same type of material as that coming from the ear. The probing of these sinuses suggested that they communicated in some way with the lesion in the middle ear. Pressure on the parotid gland failed to increase the discharging substance. The lymph nodes in the neck were not enlarged and any pressure over the area failed to express fluid from either the ear or the sinuses. Examination of the throat inside failed to show any evidence of communication of the sinus with the structures in this area. Further examination of the neck was negative. The soft structures on the chest wall showed complete atrophic and the abdomen was scaphoid. There was no evidence of any fluid in flanks.

The incision started at the upper portion of the sternum and was continued downward to the symphysis. The abdomen was opened up and the viscera examined in situ. They appeared in their normal positions and relationships with the exception of the greater omentum which showed a tendency to go into the area about the lesser curvature of the stomach. The intestines were whitish in color, moist and glistening and bore no definite evidence of adhesions. There was a little bit of free fluid in the pelvis, probably 75 c. c. It was thin serous fluid of a light straw color, not purulent. The liver extended to the costal margin and did not seem enlarged. There were a few adhesions between the surface of the liver and the dome of the diaphragm. The stomach was partially distended with fluid and gas. Teasing the omentum from around the lesser curvature of the stomach, it was seen that some lesion was present which will be described later. Moving around the intestines and examining them, showed the general

white, moist, glossy appearance without definite evidence of either localized or generalized inflammation. The appendix was retrocecal, but bore no evidence of gross change. Examination of the right kidney showed it in its normal position and maintaining a proper relationship to the adjacent structures. In moving over the intestines from the left upper quadrant a large firm mass was encountered which for the moment was difficult to determine whether it was splenic or renal in nature. Further dissection and removal of the mass showed that it was splenic in nature and that it was definitely adherent to all the adjacent structures by virtue of dense fibrous tissue changes. When the spleen was removed and examined it proved to be about twice its normal size. The notch was entirely obliterated and in its place was dense fibrous tissue. While the color was white like that of fibrous tissue, there were some areas in it that were irregular and of a yellowish white appearance very much like that of a calcareous deposit in soft tissues. On the posterior surface of the spleen this yellowish white appearing substance was as large as the palm of one's hand. Cross section showed that these yellowish white areas were calcareous deposits in what seemed to have been the capsular portion of the spleen. The splenic substance itself cut with increased resistance and showed a ham-brown cut surface streaked with a few threads of white fibrous tissue. There was no increase in blood on the cut surface as is common in the ordinary spleen. In carrying the incision through the splenic structure to the surface of the calcareous plate, it was seen that the splenic tissue could be torn away from this calcareous mass without any difficulty. The calcareous mass was very firm, almost as hard as bone tissue. The spleen was removed for microscopic section work.

In the further examination of the liver the right lobe showed little or no pathology, but in following the left lobe over the lesser curvature of the stomach an obstruction was encountered. It was seen that the stomach wall was cemented to the under surface of the right lobe of the liver, and that pressure on the stomach failed to express its contents from this adhered area. Further examination of the liver failed to show any evidence of inflammatory reaction near this area. The right lobe appeared practically normal. The gall bladder was in its normal position although

very much enlarged and filled with a thin homogeneous fluid, light brown in color. There were neither stones nor sand present in the gall bladder.

The stomach was "J" shaped and extended almost to the umbilicus. It was somewhat enlarged and distended with fluid and gas. The anterior surface was smooth and grayish white in color. The line of the lesser curvature was distinct and not adherent to the liver. In turning up the stomach to observe the posterior surface, it was seen that the greater portion of this wall was adherent to the under surface of the left lobe of the liver. The line of contact was distinct and showed as a pale white membranous structure. This line of contact was circular and appeared about two inches in diameter. Tension was made on the stomach and a line of cleavage developed between the stomach wall and liver surface. In yielding to the tension it seemed that the cement substance sealing the two surfaces, was mostly fibrin and contained very little fibrous tissue. The anterior wall of the stomach was opened up to better examine the lesion. The stomach wall showed a perforation about the size of a silver half dollar. The base of the ulcer was a cup-shaped pit in the liver substance. The gastric margin of the ulcer was thickened and somewhat edematous. The gastric mucosa was abundant and folded over the ulcerated margin. The hepatic base of the ulcer was a necrotic portion of liver tissue. The liver cavity measured one and a half inches across and about one-half inch deep. The line of contact with the stomach was completely sealed. The mucous membrane of the stomach was folded, pale yellow in color and bore no evidence of other ulceration. The pylorus and cardia were negative for gross change.

The breast plate was removed and the thoracic viscera examined in situ. The left lung had collapsed and lay in the dependent portion of the chest cavity. The right lung, however, was very firmly adhered to the anterior portion of the chest wall and was cut in incising the ends of the ribs in removing the breast plate. This showed at once that there was a very large cavity in the anterior and lower portion of the upper lobe. This cavity was about as large as an orange. The stalactites and stalagmites formed by the more resistant structures were very clearly in evidence. The bronchi and the vessels were dis-

tinnet and recognized as such. There was very little pus or caseous material in this cavity. The adhesions extended from apex of the right lung to the base and were so firm that they would not tear loose, but had to be cut before it was possible to remove the lung from the chest cavity. The lymph nodes about the hilus of the lung, particularly on the right side, were very much enlarged and had the general appearance of a tubercular adenitis. Further examination of the right lung showed the middle and lower lobe contained very good air-bearing tissue and few or no solid areas suggestive of tubercular infection. The interlobular spaces were obliterated. The left lung showed air-bearing tissue throughout and no solid areas indicative of tubercular infection. Blocks removed from the left lung contained a serous fluid which became frothy when the air was pressed out of the pulmonary tissues.

Similar blocks floated high on water. A further examination of the cavity in the right lung brought forth more evidence of a tubercular lesion. When passing a knife through the lung tissue in serial sections, especially near the trachea or hilus of the lung, it came in contact with a something which yielded the sensation of a metallic object. Further examination of this metallic object showed that it was a brass screw about an inch in length and of a bright clean color. It was surrounded by a small amount of necrotic material which hid it from view.

This necrotic material was removed and the screw exposed. It lay in the deeper part of the cavity and was not surrounded by fibrous tissue. There was no evidence that it was surrounded in part by the remnants of a bronchial wall. The point was directed away from the hilus of the lung. The general direction of the screw was parallel to some of the larger resistant vessels which lie above and behind it. The screw was not attached to these structures. In removing the screw it was found that the head rested on the remnants of the wall of a good sized bronchus. The caliber of this bronchus was somewhat less than the diameter of the head of the screw. Since this bronchus seemed to be the only avenue of entrance which screw might have followed, a further search was made for evidence of trauma of the lining membrane. This showed a few reddened hemorrhagic inflammatory areas but nothing more. The trachea bore no evidence of injury. Further cross-section of

the lungs only added evidence of the tubercular lesion.

The heart lay in its normal position and showed its natural relationship to the adjacent viscera. There were a few adhesions between the pericardium and the tubercular portion of the upper lobe of the right lung. The pericardial fluid measured 120 c. c. and was straw colored without floccules. There were no adhesions between the heart and the pericardium. The heart itself appeared normal in general outline and structure. There was, however, a rather uniform deposit of fibrin extending from the base almost to the apex which was particularly intensified along the course of the coronary vessel. This fibrin was very definitely adherent to the outer portion of the heart. There was no evidence of hemorrhage or pus formation anywhere in the heart musculature. Sectioning of the heart showed the myocardium and the valves in very excellent condition and apparently functioning efficiently. The arch of the aorta contained no atheromatous plaques or evidence of dilatation.

At this stage of the postmortem a more complete examination was made of the pancreas and its adjacent structures. It had been observed that it lay in its natural position and was not included in the reaction that took place between the stomach and liver in the closure of the ulcer. The pancreas was smaller than is normal and rather fibrotic. Along the upper margin of the pancreas was fibrous tissue ribbon which fused into the tail of this structure.

The suprarenals were further examined. The left suprarenal was small and very fragile. It would not stand the ordinary trauma incident to careful dissection. The torn portion was hemorrhagic and friable. The right suprarenal was larger than its fellow and much more firm and apparently free from any distinct necrotic change. They were both removed for sectioning.

SECTIONS.

The sections removed from the pulmonary tissue in the wall of the cavity showed a very clear picture of a tubercular lesion. Caseous areas were numerous as well as were giant cells. The pneumonic reaction was not exaggerated, but the necrosis subsequent to tubercular invasion predominated. The lymph node removed from the hilus of the right lung

showed the usual pathologic histology of a tubercular involvement. The sections removed from the left lung showed compensatory emphysema. The section removed from the parietal pleura showed that the adhesions were made up almost entirely of fibrin with fibrous tissue replacement.

The sections removed from the heart showed a mild type of myocarditis extending from the outer surface almost through the musculature to the inner surface. The fibrin, previously referred to contained some inflammatory products. This material, however, was almost pure fibrin. The sections of the coronary vessels showed some general arterial sclerosis.

The sections from the spleen showed the architecture still intact but with a marked hyperplasia of the fibrous tissue element and to a certain degree a hydropic change. In a few of the sections some inflammatory reaction was evidenced by the accumulation of polymorphonuclear leukocytes, edema, fibrin, and an increase in the blood supply. The blood vessel walls of the spleen were all thickened and fibrotic. Some of them showed hyaline degeneration. There was no amyloid infiltration found. None of the fibrotic structures showed the deposits of lime salts. The calcified area, previously referred to, was confirmed, but not sectioned.

The left adrenal showed some very marked change. Along the outer margin of the cortex the cells had undergone a liquefaction type of necrosis. The spaces contained only the remnants of a supportive tissue stroma; the liquefaction necrosis seemed complete. Deeper down in the cortical portion the cell showed lesser stages of necrosis. Cloudy swelling was in evidence in all the cells which retained any of their normal appearance. Edema and round cell infiltration was very prominent. Any evidence of a tubercular involvement of this structure is wanting. The right adrenal appeared practically normal.

The pancreas showed a rather marked fibrous tissue change, especially in the capsule. The interlobular septa contained considerable edema and a few infiltrating round cells. The parenchymal tissue is in a fairly well preserved state showing little more than a mild form of cloudy swelling. The most advanced change noticed is that of a hydropic degeneration, which has involved only a few localized areas in the parenchymal tissues. This was particularly noticeable in the area

of the pancreas which lay in close contact with the liver and stomach at the site of ulceration. What inflammatory products were found in the pancreatic tissue were most noticeable in this area.

The section of liver removed a distance from the ulcer showed a generalized cloudy swelling advancing to a hydropic degeneration, with an infiltration of round cells particularly about the portal system. There was no evidence of tubercular lesion found in these sections of the liver. Focal abscess formation, fatty degeneration, amyloid infiltration, and hyaline degeneration are also wanting. The section removed from the ulcerating area showed a very definite reactive change. In the portion of the slide from the depths of the ulcer, there remains a few islands or nests of necrotic hepatic cells surrounded by a fibrin framework holding in its meshes all types of phagocytic cells and a certain amount of serous fluid. In the superficial part of the ulcerated area all these cellular elements show advanced stages of degeneration and necrosis. In the portion deeper in the liver structure the necrotic and degenerative change is replaced by a hyperplastic and proliferative change. Beginning organization of a limiting wall can be made out. In the portion of the section including the line of contact between the outer surface of the liver and stomach it appears that the prevailing cement substance was made up primarily of precipitated fibrin and holding in its meshwork phagocytic cells and detritus. Along the deeper portion of this wall of cement substance is a beginning organization with definite fibrous tissue proliferation. Deeper in the hepatic substance the inflammatory reaction fades and the hepatic tissue appears more nearly normal.

The section of stomach removed from the margin of the ulcer showed a decided thickening of the elements of its structure. The musculature shows a certain amount of albuminous degeneration with edema and some round cell infiltration with beginning necrotic changes. The sub-mucosa shows more edema than that of the musculature. The mucosa is thickened and the glandular structures show a mucoid degeneration. The portion of sections passing through the margin of the ulcer shows the advanced stages of necrotic change with cellular reactive infiltration. There was no evidence of either a tubercular or malign-

nant etiology in this ulcer. The outer or serosal surface of the stomach which was tied to the under surface of the liver by the fibrous cement substance shows the cellular reaction and beginning organization as that described in the liver. In neither section did it show the presence of fully developed fibrous tissue, but showed fibroblasts and budding blood vessels and fixed tissue proliferation.

The multiple cystic condition referred to in the macroscopic description of the kidney was confirmed by the microscopic findings. These cysts, for the most part, belonged to the group of simple cysts and seemed to originate in the kidney tubules. Cloudy swelling, hydropic degeneration, and the formation of hyaline casts showed a diffuse process in all the kidney structure examined. In some areas there was a definite increase of fibrous tissue both of the stromal structure and of the blood vessel walls. Amyloid infiltration was not in evidence in any of the sections examined. There was no evidence of focal necrosis nor tubercular lesion in the kidney.

DEDUCTIONS.

1. Pulmonary tuberculosis with cavity formation.
2. Foreign body in the cavity—a brass screw.
3. Obliterative pleurisy, right side.
4. Fibrinous pericarditis.
5. Myocarditis.
6. Localized ulceration of the liver.
7. Diffuse portal hepatitis.
8. Perforating gastric ulcer (peptic).
9. Capsular pancreatitis.
10. Chronic splenitis.
11. Calcareous infiltration in spleen.
12. Degeneration and necrosis of left suprarenal.
13. Diffuse parenchymatous nephritis.
14. Multiple cystic kidney.
15. Discharging ear, both sides.
16. No definite peritonitis.

CAUSE OF DEATH.

A composite cause, the particular one of which seems rather indefinite.

Book Reviews.

Rhus Dermatitis (Poison Ivy)—Its pathology and chemotherapy. By James B. McNair, Chicago. Published by the University of Chicago Press, Chicago, Ill.

This book gives a comprehensive study of the poison in the plant, its origin and occurrence, its seasonal variations, and its transmission from plant to person. The author discusses with particular care the chemistry of the poison, the pathology of the resultant disease during the different stages, the after-effects and recurrence. He also presents definite treatment from a strictly scientific point of view.

Legal Medicine and Toxicology—By many specialists. Edited by Frederick Peterson, M. D., Manager Craig Colony for Epileptics; Walter S. Haines, M. D., late Professor of Chemistry, Materia Medica and Toxicology, Rush Medical College; and Ralph W. Webster, M. D., Assistant Professor of Medical Jurisprudence, Rush Medical College. Second edition. Two octavo volumes, totaling 2,268 pages, with 334 illustrations, including 10 insets in colors. Philadelphia and London. W. B. Saunders Company, 1923. Cloth, \$20.00 net.

These two volumes of about 1,000 pages each, gives to the medical and legal profession a survey of forensic medicine and toxicology. Also a Summary of State Relating to the Insane is given.

Several new articles appear that are not found in the new edition. It is a very valuable and useful book for physicians.

Abt's Pediatrics—By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. In eight octavo volumes, totaling 8,000 pages with 1,500 illustrations, and separate Desk Index volume free. Now ready—volume 1 containing 1,240 pages with 284 illustrations. Volume 2, containing 1,025 pages with 180 illustrations. Philadelphia and London. W. B. Saunders Company, 1923. Cloth, \$10.00 per volume. Sold by subscription.

This collection of monographs covers all phases of the subject from every angle—both medical and surgical. Conclusions are recorded of 150 specialists of international reputation. All subjects are thoroughly covered, emphasis being placed on diagnosis and treatment, giving stress where justified to serums, vaccines, antitoxins, and organic therapy. In addition to the discussion of the internal diseases of children, subjects of surgical interest have been introduced.

The complete set includes eight volumes, totaling 8,000 pages and 1,500 illustrations. Two volumes of this epoch-making work on Pediatrics are now available.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

Season's Compliments

This being the December issue of the Journal it will bring with it the Christmas holidays and the close of the current year. The festival of Christmas has long ceased to be confined to Christians as an observance. In this great melting pot of all races and all faiths the day has come to be observed joyously by those of all nations, races and faiths in America. It is a festival in which Protestant and Catholic, Jew and Gentile, and those of no faith in revealed religion, alike take part. It is a day symbolizing that Peace which all would have, but which remains uncertain in an alleged civilized age in which force and armed conflict still obtain. It is the day of feasting, of merry-making, of good will on earth stressed by the giving and receiving of gracious gifts, of relieving those in distress, of kindly greetings and friendly reunions.

To our readers, publishers of books, editors of Journals which courteously exchange with us, to the great American Medical Association, Co-Operative Medical Advertising Bureau, and our Advertisers, we extend the wish that Christmas will find them in the full enjoyment of health and all the blessings which this world can afford. And as for the New Year, let us go back to the words of Franklin's Poor Richard's Almanac for 1755:

"Be at war with your vices, at peace with your neighbors, and let every year find you a better man."

THE TRAGEDY OF FRAUDULENT MEDICAL DEGREES.

From Connecticut comes an echo of the recent revelations of the activities of the medical college in Missouri where it is charged "degrees" are issued, like stocks and bonds, to whoever is able to pay for them. An account has been published of a barber who bought himself a degree, armed with which he managed to buy a lucrative practice from a retiring physician and was transformed into a full-fledged M. D. When an ex-soldier went to him with an infected finger the pseudo-physician did not hesitate to add surgery to his list of accomplishments. He administered ether to his victim before the amputation—and the ex-soldier died. How many unsuspecting victims have uselessly died and been buried under certificates given out by fake "doctors" can not possibly be estimated. Is it not time the Arkansas Legislature awoke to the necessity of abolishing the multitudinous "boards" and of relieving Arkansas of the stigma of admitting to practice "graduates" of a college not recognized even by the State in which it lives and has its being?

OFFICERS' RESERVE—MEDICAL SECTION.

M. W. Ireland, Surgeon General of the Army, plans to enroll all eligible members of the profession in the Medical Reserve section of the Officers' Reserve Corps. To accomplish this he desires that the attention of all organized medical societies be called to the fact and that all possible publicity be given the matter through the various medical journals and magazines. The Journal of the Arkansas Medical Society gladly gives its co-operation to so wise a movement.

It is pointed out by the Surgeon General that organization of an adequate medical reserve, in time of peace, will "preclude a repetition of the unavoidable inequalities and misapplication of talent which developed as a result of our state of unpreparedness prior to and during the World War." The medical section did wonderful work during and after the war, especially considering the necessary haste in which that section was organized. In this time of peace, when there is no immediate emergency, there is ample time to differentiate and to ascertain to what field certain practitioners either in medicine or surgery are best fitted. This will assure a degree of efficiency

impossible to achieve in the more or less haphazard methods of assignments to duty inseparable from a hurried mustering of men for service on an emergency call, such as accompanied our entrance into a great war for which our country was almost wholly unprepared. "In time of peace prepare for war" is the wisest of advice in an era when the doctrine of force still prevails—for prate of peace as we may, the most peaceful of nations is likely to be forced into a war of self-defense.

The Surgeon General suggests that each medical society appoint a military committee, and this is a wise suggestion because such committees are best capable to judge of the attainments and special fitness of the local physicians and surgeons in their respective communities and to make reports to the Surgeon General's office. As outlined by the Surgeon General the purposes of these committees will be as follows:

(a) To establish and maintain contact with the War Department, through the Surgeon General.

(b) To promote the organization of the Reserve Corps by procurement of enrollments therein.

(c) To receive information from the War Department in connection with the Reserve Corps and to convey the same to the medical societies.

(d) To convey the recommendations of their respective societies for the improvement of the organization and training of reserve officers.

By this means it will be seen that the Surgeon General's office will be placed in intimate touch with members of the profession throughout the whole country, the immense advantage of which is so apparent as to need no further comment

Personal and News Items.

Dr. T. J. Stout of Brinkley was elected as one of the vice-presidents at the recent meeting in Memphis of the Tri-State Medical Association.

The Holt Clinic and St. John's Hospital, Fort Smith, announce the addition to its staff of Dr. J. E. Little, practice limited to skin and genito-urinary diseases.

The names of Dr. R. C. Thompson, Paris, J. E. Neighbors, Stuttgart, and John Stewart, Booneville, were unavoidably omitted from the annual list of members published in the November issue.

Drs. S. J. Hesterly, Prescott; W. G. Hodges, Malvern; H. H. Darnall, Columbus; G. S. Brown, Conway; Thad Cothorn, Jonesboro; visited in Little Rock during the past month.

Dr. Robert King, medical missionary to Belgian Congo District, South Africa, is visiting friends in Little Rock. Dr. King is suffering from malaria, but progressing favorably under treatment.

Dr. Lincoln Humphreys, U. S. Navy, returned to San Francisco, Calif., on November 20, 1923, after having been on duty at the Samoan Hospital in American Samoa for the past two years.

Dr. E. A. Chace of Texarkana was elected president at the Tri-State Medical Association at their recent meeting in Texarkana. Shreveport, Louisiana, was selected as the meeting place for 1924.

Dr. M. P. McNeil, formerly of Little Rock, is now in the Indian Service of the Government, location at Kyle, S. D. He writes that two good positions are now available and if any one is interested to write him for particulars.

At the annual meeting of the Pulaski County Medical Society, December 10, the following officers were elected: President, H. A. Higgins; vice-president, H. Fay Jones; secretary, R. J. Calcote; treasurer, William R. Bathurst.

The board of trustees of the American Medical Association recently authorized the announcement that the annual fellowship dues, which includes subscription to The Journal of the A. M. A., would be reduced to \$5.00, beginning January 1, 1924.

FOR SALE—Books. Over 50 choice, medical books, from the library of the late Dr. E. B. Greene, are offered for sale at the low cash price of \$50.00. If interested, write Mrs. E. B. Greene, Siloam Springs, Arkansas. (Advt.)

FOR SALE—Two real bargains in X-Ray machines for quick sale. One 10-inch hospital size auto control, also resistance control for Coolidge tube. \$1,000.00, worth \$1,750.00. One 7-inch machine, used, but better than new, for \$550.00. Demonstration and installation free. For further information, address X-Ray, care Journal of the Arkansas Medical Society. (Advt.)

At a recent meeting of the Washington County Medical Society a committee consisting of Drs. Wood, Gregg, and Miller, was appointed to select the committees and make the recommendations necessary in preparation for the next meeting of the State Medical Society. The committee will report at the next meeting of the county society in January, 1924.

The Washington County Society and Fayetteville will not fail in their efforts to provide pleasant entertainment for the visitors at the next State Medical Convention, May 6, 7, 8.

There has recently been organized and incorporated in the State of Massachusetts a national lay society, "Friends of Medical Progress." This society has been organized to "encourage and aid all research and humane experimentation for the advancement of medical science, to inform the public of the truth concerning the value of scientific medicine to humanity and to animals, and to resist the efforts of the various persons and societies constantly urging legislation dangerous to the health and well-being of the American people."

It is a lay society, and as such naturally does not wish to be supported entirely by the doctors and scientists. However, as they are the people who are necessarily most interested we are appealing to them to help us "start the ball rolling." A first membership drive is always difficult; but it must be successful if we are really to "spread as a strong organization throughout the United States."

Associate members (annual payment of \$1.00).

Contributing members (annual payment of \$5.00).

Sustaining members (annual payment of \$25.00).

Life members (by payment of not less than \$200.00 at one time).

Checks should be made payable to "Friends of Medical Progress, Inc.," and sent to the headquarters of the society, 28 Newburg Street, Boston, Mass.

It was the pleasure and privilege of the Secretary-editor to attend a conference of State Secretaries and Editors at the office of the American Medical Association in Chicago, November 16-17. Among the topics discussed were "Post-Graduate Courses for County Societies," "Organizations for County Medical Societies for Promoting Periodic Medical Examinations," and "What Measures Can Be Initiated by County, District and State Medical Societies for Increasing Efficiency and for the Promotion of the Professional and Economic Status of the Physician."

The American Red Cross does not issue and has no connection with the Christmas seals. Many newspapers erroneously call them "Red Cross Christmas Seals," which they are not.

The proceeds from the sale of these seals go to the National Tuberculosis Association. The American Red Cross has no financial interest in these seals, although there is a cordial co-operation between the anti-tuberculosis association and the Red Cross.

As the seal campaign comes at the close of the Annual Red Cross Roll Call people are inclined to confuse the Christmas seal sale and the roll call.

County Societies.

CRAIGHEAD COUNTY.

(Reported by Thad Cothern, Sec.)

Jonesboro, Ark., December 7, 1923.—The Craighead County Medical Society met in regular session at 6:00 o'clock this evening in one of the banquet rooms of the Hotel Noble. Mr. Noble had overdone himself in having prepared for us an elaborate and appetizing feed and all present showed their appreciation by heartily partaking thereof.

The minutes of the last meeting were read and approved.

The secretary read letters from Dr. E. C. McDaniel of Tyronza, and Dr. N. H. Grady of Hot Springs, expressing their regret at not being able to be at the meeting and wishing our society and its members much prosperity and harmonious work for the coming year.

Dr. Grady, one of our members, now residing in Hot Springs, suggested in his letter that he contemplated offering a valuable prize to the member of our society who got up the best paper for, or rendered the most valuable service to our society for 1924.

The committee appointed at our last meeting to study our society's needs as to its officers for the coming year, made its report, which is as follows:

President, J. C. Howell, Nettleton.

Vice-president, E. J. Horner, Jonesboro.

Treasurer (re-elected), T. J. Altman, Jonesboro.

Secretary (re-elected), Thad Cothern, Jonesboro.

Censor for three years, H. H. McAdams, Jonesboro.

A motion was made and carried that the report of the committee be accepted and the ones recommended be elected by acclamation. A motion was made and carried that a rising vote of thanks be extended to Dr. O. V. Smith, our retiring president, and to Dr. Thad Cothern, secretary, for their untiring zeal and work for the advancement of the society during the past year. Both responded by thanking the membership for their co-operation which made any progress at all possible.

It was voted that we have the first meeting of every month in the form of a six o'clock dinner at the Hotel Noble, and programs be in the future as in the past, mailed out in ample time for the membership to plan for attendance.

Among those present were Drs. Haltom, Horner, Howell, McAdams, McCracken, Meyer, Overstreet, O. V. Smith, J. M. Smith, Stott, Stroud, Walker and Cothern.

HOME MANAGEMENT OF THE DIET IN NEPHRITIS.

J. P. O'Hare and M. C. Vickers, Boston (*Journal A. M. A.*, Nov. 10, 1923), present a diet sheet to be used in cases of nephritis. It restricts the patient's intake of protein, water and salt to the amounts desired by the physician. It gives the patient great freedom of choice in the selection of his menu. It is so simple that any one of any intelligence can follow it anywhere.

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No. 8

Original Articles.

ENCEPHALITIS.*

Earle H. Hunt, M. D., Clarksville.

I first thought I would write a paper on Encephalitis, but I found that it would just be a compilation of facts from the textbooks, as I didn't know anything about encephalitis. So I decided I would make a report on four cases which I had this past winter.

No. 1. Charlie Green, a boy seventeen years old, who took sick December 16, 1922. He first had what they thought was an attack of "grip" or influenza; he had some fever, and felt rather badly. In five or six days he took a spell of staying awake for a couple of nights. For the next three weeks he was asleep. They could wake him up and get him to eat. Three or four days before he went to sleep he was seeing double. Nothing hurt him; temperature normal; pulse 70 or 72. We could arouse him and could ask him questions and he would say "yes" or "no"; but would not carry on any conversation at all. He slept for three weeks. No serum was given to him. I gave him 4-gr. doses of quinine, twelve doses every three hours; then put him on iron, quinine and strychnin. At the end of two months, by February 15, he was able to walk around town and is now doing some work; but he doesn't look as bright as he used to or carry on conversations as well.

No. 2. John Walton, age 40 years, of Clarksville. Family history and personal history unimportant, only his father lost his mind and died some fifteen or eighteen years ago. On January 12, having worked all day, he went home and went to bed and couldn't go to sleep; nothing hurt him; just couldn't

sleep; he didn't sleep the night of the 12th; he didn't report for work on the 13th because he hadn't slept the night before. The night of the 13th he couldn't go to sleep, and on the 14th he came to my office. Was seeing double. Nothing hurt him; but when he would look at anything from any angle he would see two things. He told me he had at one time walked down to the office and could not tell which sidewalk to walk on. He started by himself, and a friend happened to see him and he asked him what was the matter. When he would notice him, he would be out two or three feet off of the sidewalk. This fellow had to guide him. His urine was normal; his blood pressure was 130. I didn't get anything abnormal with the ophthalmoscope. I told him that I thought he had the "flu," and put him on some quinine and gave him a 10-gr. round of calomel, and on the 15th he went to sleep. He slept that night, and the next morning would get up and talk some. He just kept getting drowsier, and had a peculiar tremor. Then January 25, 1923, we had Dr. Scully from Dr. Greene's office here in Hot Springs come up. From the 14th until the 26th I had given him the quinine. But when Dr. Scully came up, we gave him a very thorough and careful examination. We made a spinal puncture, and sent down to their office, and their report was that the spinal fluid had 38 cells and increased globulin. With the clinical symptoms—on the 26th he was asleep and had been asleep all during the night and day—and with this increased cell count and the increased globulin, we confirmed our diagnosis of the encephalitis lethargica form. On the 27th we got some of Dr. Rosenow's serum, and at 11:30 of that day gave him 15 cc. of the serum intravenously. The serum came without any directions at all. The only data we had was Dr. Rosenow's article in the Journal of the American Medical Association of De-

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

ember 16, 1922. He stated in that report that he had given children as much as 15 cc. So I gave this fellow 15 cc. Before I pulled the needle out of the vein his right arm had broken out with the worst urticaria I ever saw. He became flushed, his feet tingled and his pulse got weak; it went from 88 to 140; I couldn't hear any second heart sound. He broke out with a general urticaria in ten minutes after giving the serum. The temperature was normal and the pulse 80 when we started giving the serum. At 2:30 p. m. the temperature was 101 and the pulse 140. At midnight the temperature was normal and the pulse 100. On January 29, we gave him 10 cc. of the serum, and the pulse went from 85 to 96; but the temperature remained normal. On the 30th we gave him 11 cc. and his pulse went from 86 to 96, the temperature remaining normal. On February 1, injected 10 cc. Pulse was 82 when we injected the serum, and the serum did not raise the pulse rate. On the 3d and 4th we gave him 10 cc. of the serum, and on the 4th he developed a general urticaria. The urticaria from the first injection disappeared in 36 hours. We continued giving the serum and on February 4, he had a general urticaria. The patient was very restless and complained of pain, aching and itching all over, and we had to give him some paregoric to keep him quiet. February 5 he was still itching, and more paregoric was given just as needed to keep him easy and fairly comfortable. On February 9, we gave him 10 cc. of the serum. His pulse was 68 and temperature 98 before the injection, and five minutes after this injection on February 9 the pulse went to 120, and he had a general flushing of the skin and deep respirations. The respiration got to 40; couldn't hear the second heart sound at all; he wanted to be fanned; insisted that he was dying; limbs tingled; tried to vomit; patient was very sick. One hour after the injection the patient had a chill which lasted 30 minutes. At 1:30 p. m. the pulse was 78, the temperature 101; eyes just as red as any conjunctivitis you ever saw. At 6:40 the patient had been awake all day; mind clear and could keep eyes open; talked some when talked to, and opened one conversation; face swollen very badly, both arms swollen to twice their normal size. From February 9 to March 17, he made some improvement; got to where he would carry on conversations, even looked at

the paper and insisted on getting up, and wanted to get up. Was awake 40 minutes after each meal; but when he would sit down in a chair he would get his eyes on one thing and keep them there. When we talked to him he would talk, and once in a while he would ask questions. But on March 17, after we put up with two months of real fighting with him, his family decided that he needed a *real* doctor and they got a chiropractor. Since March 17, I haven't seen him, of course. But the chiropractor came there and he gave him adjustments up to March 10, when he had a hemorrhage in the brain and total paralysis. When I left home the other day they said he was sitting up again. I don't know how to get along with this chiropractic situation. I hated very much to lose that ease, especially after Dr. Greene's office from Hot Springs and some others had done so much work on that poor fellow. But I was told that he sits in a chair, his hands shake some and he has commenced to carry on conversation.

No. 3. Lee Morrow, a boy six years old. He was a bright little fellow. Had chills last fall, but during the winter had been unusually healthy. Had a cold for two days, but wasn't sick enough to put him to bed or keep him in the house. On February 3, he commenced showing signs of being unusually bright, and talkative. He didn't sleep the night of February 1st, nor the 2d. On the morning of the 3d they called their family physician, Dr. Boyer, and that afternoon they called me up there. I told them I believed we had a case of encephalitis. Without giving him any medicine to make him rest at all, on the night of the 3d he went to sleep, and on the morning of the 4th he was still asleep. We gave him 5 cc. of Dr. Rosenow's serum, intramuscularly. We gave him the serum on the 4th, 5th, 6th and 7th, in 5 cc. doses, and he was asleep from the night of the 3d until the 7th. Now, before he went to sleep he was seeing double.

Diplopia was the only constant symptom that these cases ever had. They first had a period of wakefulness and then double vision. Before he went to sleep his pulse was 120 and his temperature 101 each time that the doctor called on him. February 7, he was rational, and his temperature normal. The father reported to the doctor on February 7 that he was doing so well that he believed it would

not be necessary for him to come to see him, and he reported on the 8th and 9th that the patient was doing so well that the doctor need not see him. On the night of the 9th or the morning of the 10th, they went to bed without sitting up with the boy. That night he called them, and wanted a drink of water. They gave him the drink of water, and went back to bed. They noticed he was not breathing well. He died shortly after, that same night; and he was dead and buried before I heard anything about it. I had been patting myself on the head, thinking that Dr. Rose-now's serum had saved the boy's life, and Dr. Boyer thought the same. I don't know what killed him.

No. 4. Miss Dorcas Cline, an old maid 67 years of age. I saw her the first time on February 3. She had been asleep for three weeks. They hadn't thought anything about it and just let her sleep. They didn't have a doctor to see her, but some of the people in the town heard about it. When we found out this case of Dr. Boyer's was encephalitis, I said, "I'll bet that's what she has." So we went up and looked her over. On the 4th, 5th, 6th and 7th we gave her 10 cc. of Rose-now's serum, and on the 7th she woke up and commenced carrying on a conversation and tried to feed herself. During this three weeks she had been in bed she didn't carry on any conversation. They would have to shake her and give her a spoonful of stuff to eat and she would go to sleep before they could get the spoon out. From then until now she has had no more of the serum. She is able to go around and carry on conversations. I am giving her an iron, quinine and strychnin tonic.

ENCEPHALITIS.*

H. E. Murry, M. D., Texarkana.

"Encephalitis is an acute non-purulent inflammation of the brain."—*Oxford*.

Encephalitis appears to be considered by present day pathologists as a complication, therefore, should be classified in name with the disease which it complicates. Most pathologists give but small space to it, either as disease entirely or complications.

* Read before the Forty-eighth Annual Meeting of the Arkansas Medical Society, Hot Springs, May 2-4, 1923.

Howell, in *Oxford Medicine*, gives more detail than any other source I have investigated. A few of those conditions are here listed, which may be considered encephalitis:

Cortical encephalitis associated with meningitis.

Inflammations secondary to septic wounds.

Those identical in etiology and morbid anatomy with acute polio. These present clinical features of remarkable similarity. They are met as complications of acute septic fevers, more particularly perhaps in connection with influenza and measles—epidemics of polio—and more recently a type has come prominently under notice as Encephalitis Lethargica. This has been associated with a severe epidemic of influenza. Though in particular this type presents symptoms which clinically seem to differentiate it sharply from other types, though this is not the case. Pathologists have no adequate means of separating these cases, nor are there any tests, either chemical, cytological, or both, by which cases of this disease may be classified.

The diagnosis, therefore, presents considerable difficulty. Accordingly, it is necessary to classify them largely by the area of brain affected. For example, cortical encephalitis, cerebellar, mesencephalic and on the disease with which it is associated.

Wernicke, in 1881, described some type, while other groups were described by Strumpell in 1884. These last occurring more frequently in children, and probably correspond with what we term polio-cerebral form.

The general symptoms are usually abrupt, high temperature, severe headache, vomiting, rapid pulse and respiration. Convulsions are quite common in children. Fatal cases dying with brain pressure interfering with cerebral nerve functions.

MORBID ANATOMY.

The microscopic appearances are fairly constant and characteristic. Congestion of the meningeal vesicles, with occasional thrombosis of blood—(veins)—brain is usually edematous, flattened from pressure. On section there are many microhemorrhagic foci, associated with encephalitic evidence.

Changes in nerve cells are extremely constant, particular cells or cell groups are picked out in individual nuclear, yet occasionally a neighboring cell may remain undamaged. Round cell pervascular infiltration may be

found in all cases, though even this is not so constant as infiltration of tissues with lymphocytes and plasma cells.

The early clinical features are fairly well similar to onset of any acute infectious disease. These symptoms are familiar to most every practitioner, and space here is too limited to include them. The diagnostic findings will be included in a limited way.

Sphincters are interfered with in severe cases, and retention of urine is not uncommon, likewise constipation. The symptoms are progressive, and rarely become severest at early stage. Usually after the expiration of six days do the maximum effects appear.

Cerebro-spinal fluid is usually found under increased pressure; but does not always show other marked abnormalities. However, my findings have all been mildly high count of lymphocytes—seventy to fifty cells globulin may be present.

Blood.—Little variation from normal—first stage—but a gradual rise to 10,000 to 12,000 appears.

Diagnosis may in some cases be a matter of great difficulty, and is best made by a process of exclusion. Those conditions most closely resembling in symptoms to those of encephalitis are meningitis, as tuberculous or syphilitic, cerebral tumor or abscess, enteric fever, influenza, possibly uremia or disseminated sclerosis. The spinal fluid clears up certain possibilities. Since the lethargic encephalitis is not much above a normal count, and the tuberculous with its floeculent clot and increase in cell count (lymph) increased peatines, and of course the findings of the tubercle bacillus is final.

Syphilis, etc., papilledema, enteric fever.

So much for a very limited review of the lethargic encephalitis and the encephalitis group.

There is another condition which I will include in the group as the excited type of encephalitis, probably a post influenzal condition.

My patient, one of whose case I will describe, had very constant and similar symptoms.

HISTORY.

Three weeks prior to my seeing the case, this young lady, aged about 18, began to complain about nervousness and inability to sit quietly at her desk in school. Sudden sounds would cause her to jump in quite an unusual

way. Her parents noticed that she acted much more energetically than was her customary, quiet manner. These symptoms gradually increased until she was put to bed. Large doses of sedatives gave only momentary relief. She was brought to Texarkana for diagnosis. No chill or marked fever was noticed before, but at this time 100-100 1-2 were registered. The body in every part was in almost continuous activity. Quarter-grain doses of morphia gave some ten minutes of rest.

Physical examination showed no other pathological indications.

DISCUSSION.

Dr. H. Thibault (Scott): There are two or three points in each one of these papers that I would like to discuss and one point that was not brought out in either one. There is nothing that has ever happened to human nature that couldn't have been worse. Encephalitis offers great difficulty in making a diagnosis. The fact that with one exception all the cases reported here are of the lethargic type—that is, the patients were somnolent, which sometimes is a very late symptom in this disease—shows what grave danger to the human being this disease would have been had it been endowed with the virulence and contagiousness of measles, for instance. With a disease that requires some time to diagnose, and with such a power of propagating itself in the human race, it would have practically swept the country before we knew we had it. We ought to be thankful that we were spared at least that much in encephalitis. It has so many types, the poliomyelitis type, the meningitis type, the somnolent type and the exciting type, and there are so many other things, as the last essayist mentioned, border-line complaints that look like it sometimes, that we are slow to make a diagnosis. If we had to deal with the contagiousness of measles also, it would be a fearful adversary.

Now, I want to ask Dr. Hunt a question. He said one of these patients, he thought, had the "flu," and he gave him 10 grains of quinine and calomel, a lot of quinine, 10 grains of calomel and a lot more of quinine, 10 grains of calomel and a lot more of quinine. Why should a poor human being, afflicted with influenza, have to have 10 grains of calomel and a lot of quinine on top of it? It looks like the "flu" was enough, under the circumstances. No wonder the chiropractic had an opportunity. (Laughter.) Probably you think me rather bold to take issue with our last essayist, and with the question of biochemistry. It certainly looks like a bold step to take. As a matter of fact, he quotes McCloud, and I think he is wrong. Hexamethylenetetramin acts in the presence of an acid. That is, it slowly disintegrates, giving off formaldehyde, but that is an acid in the laboratory sense of the word. It belongs on the acid side of the electro-chemical relations or the chemical elements below hydrogen. The acidity of the cerebral spinal fluid and of the blood serum never enters that domain. It is acid or alkaline simply in the relative concentration of the hydrogenous relative to normal alkalinity, and it never reaches that phase of acidity that is understood by the acidity of urine or the acidity of acetic acid in comparison to the solution of sodium hydrate, for instance. The blood serum and the

cerebral spinal fluid in the living human being never enters that condition of acidity that is necessary to disassociate the molecules of hexamethylenetetramin. Now, we can give a man acid and produce an acid urine that is probably really acid in the pelvis of the kidney or the bladder and will disintegrate hexamethylenetetramin into formaldehyde and its other constituents; but such a thing is not possible in the blood serum or the cerebral spinal fluid of the living human individual. It means that the acid that he assumes in the cerebral spinal fluid is merely a relative term in regard to the normal hydrogenous concentrates in the normal human being. Any of you men up in biochemistry will have to agree with that, that there is no such thing as an acid blood serum, for instance, in the human being in the sense of the acidity that is necessary for the disintegration of hexamethylenetetramin.

Now, outside of the possibility of some good from the Rosenow serum, which is extremely doubtful, the only effective treatment is good nursing.

Dr. H. J. G. Koobs (Rogers): There are a few points in connection with this subject that I think should be emphasized or perhaps cleared up.

Encephalitis is a term that has been used rather indiscriminately for various types of infections of the cranial cavity. The subject which we have under consideration now is apparently restricted to encephalitis lethargica and this is unquestionably a distinct entity. There has been an immense amount of literature put out on this topic of late, particularly in the last three or four years. It is a disease that is apparently widespread, occurs rather commonly and perhaps has not been recognized by many of us, or it may be that it is now more prevalent than it has been in the past.

However, that may be, we know it is undoubtedly existing, as I say as a definite entity. The research work that has been done on this subject seems to establish the fact that it is due to some sort of virus, the bacteriological nature of which has not been discovered so far. In many respects it is similar to poliomyelitis, although not identical, because it does not respond in the same way in inoculation tests in animals that the virus of poliomyelitis does.

There are a few outstanding features in the symptomatology that I think we should bear in mind.

First, its insidious, apparently rather slow onset and that it is not communicable in the same way that smallpox, measles or scarlet fever are; however, we don't know the exact mode of transmission and period of incubation. It is surmised that the virus usually gains access by way of the nasal mucous membrane and is from here directly transmitted to the cranial cavity through the lymph channels.

There seems to be almost invariably a period of insomnia or wakefulness preceding the lethargic condition (although not necessarily so). We may even have encephalitis lethargica without somnolence; but this is probably very rare, as a rule it is present to some degree at some period of the disease.

Eye symptoms are commonly present and these are the reasons for my investigating the disease more or less thoroughly. I may say here that these eye symptoms are not so much those of vision per se, i. e., not retinal involvement, but involvement of the nerves other than the optic nerve and I will presently tell you why.

General malaise is another dominant feature of the symptomatology and seems to occur rather early.

It seems that the disease manifests itself and assumes the complex symptomatology by reason of the character of the cranial involvement which consists largely in a perivascular round cell infiltration at definite nuclear centers and this explains why we have the symptom-complexes that we do find, because the symptoms depend largely upon the region of the brain involved. For instance, the distinct symptom complex of chorea, with all of the choreic manifestations, tremor, etc., simply means that certain definite areas of the brain have been invaded by this organism and that the involvement, so far as the microscope reveals, consists in a perivascular round cell infiltration of those areas. The reason why we have the ocular symptoms is because it is in the nuclear areas of the third, fourth and sixth nerves particularly that this involvement takes place in these instances. This involvement of the nerves that supply the extra-ocular muscles explains the occurrence of diplopia and other eye muscle manifestations. If we have intra-ocular disturbances, it is usually because of the third nerve involvement of the uveal tract.

As to prognosis, it seems that the disease is remittently chronic; that is, we have periods of improvement and again remissions. The patient will apparently be convalescent and next there will be a relapse and he will be worse than ever. There is apparently no such thing as a permanent and real recovery in the well marked cases. This seems to be the consensus of opinion today at least. This should put us on our guard in making statements to patient or family. Remembering this may save us a great deal of embarrassment. When we have some knowledge of the pathology of this disease, it is not hard to understand why this is so.

This explains why efficient treatment is so difficult.

1. The brain invasion has taken place and definite, probably irreparable damage has been done by the time we have symptoms enough so we can make a diagnosis.

2. As the causative organism has not been isolated, rational scientific treatment with vaccine, sera or antitoxins seems to me to be non-existent. Whether the blood plasma can be made to carry drugs such as urotropin, etc., in sufficient amounts to be bactericidal to the involved areas is certainly not very probable, although it may be that the multiplication of the virus may influence the extent of the invasion. It is certainly advisable to insure ample elimination of toxins and develop vital resistance in every way possible.

The earlier these things are done, the better it is for the patient but, whatever we do, let's not forget the poor prognosis.

Dr. J. L. Greene (Hot Springs): I was glad to hear the papers of both Dr. Hunt and Dr. Murry, particularly the report of the case by Dr. Hunt, as I have been in frequent communication with him and, in a way, advised what he did, and therefore approve it.

When Dr. Hunt called me about his case, we had a supply of serum on hand and I sent it to him. It was fresh, having been received only a day or two before from Dr. Rosenow. There could have been nothing wrong with the serum and it is believed that the skin manifestations following

its administration were due to the fact that his patient was not sensitized to horse serum.

The questions surrounding the whole problem of encephalitis have been so much in the literature of the last year or two that it occurs to me there should be a better view of the whole problem than appears to be present at this time. The designation of this grave illness as "sleeping sickness" is a misnomer. The patient who suffers from this disease in its advanced stage is not asleep, but rather in a condition of clouding consciousness. The clouding may be of any degree, to and including a complete fatuity and coma.

Concerning the diagnosis, I can not consent to the statement that it is a difficult thing to make. Every patient that I have seen has given a history of the period of psychomotor restlessness with wakefulness that precedes the period of lethargy or so-called sleeping symptoms. Indeed, a critical retrospection and careful questioning will bring out that the patient was wakeful and restless with other evidences of an irritating process in the central nervous system for many days preceding the advent of clouding of consciousness.

I believe that headache as a symptom has not been mentioned. It is present at all times in this period of restlessness and is of a character and severity typical of this disease. Ordinarily it is not relieved by remedies, morphine giving only relief for a very brief time. So, when the period of clouding of consciousness, or lethargy, comes on, the patient has already had a very great amount of damage done and a large area of brain tissue has been involved. An examination of the spinal fluid should be made early in the period of wakefulness. I know of no investigation upon which more certain opinion can be predicated than that of spinal fluid examination, when well done. The fluid should be examined, so far as the cell count is concerned within fifteen or twenty minutes after the specimen is obtained. If there are over ten per cent lymphocytes differential count, this is *prima facie* evidence of a meningo-cortical irritation, and in this early stage there is an increase in the normal amount of albumin and globulin generally present. If this state of facts develops and a Wassermann reaction is negative, it points to irritation, if not inflammation, with beginning formation of an exudate. So when we see one of these patients who is irritable, wakeful and suffering from headache, with diplopia, it strongly suggests grave organic mischief in the oculo-motor nervous mechanism of the extra-ocular nerves. A critical study of the retina with the pupils well open, even in this early stage will show the retinal vessels overfull and the delicate seashell tint has given way to flaming redness. So, taking all of these things into consideration, it occurs to me that the diagnosis of this disease is not overly difficult.

None knows its etiology. I think Dr. Rosenow believes that we are dealing with an infectious process that is probably due to an ultra-microscopic organism with a filtrable virus.

Concerning the treatment other than an expectant plan, or by the use of the serum prepared by Dr. Rosenow, we have little that offers hope of help and must depend upon the individual resistance. I wish to state in this connection that just preceding the case reported by Dr. Hunt, we had come to us a young man accompanied by his father, who gave a history of a period of wakefulness covering ten nights and days. He was certain that he had not slept at all during that time and was suffering from a very intense headache, with a moderate rise of temperature. Mor-

phine had been given him, but it produced only drowsiness—no sleep. A spinal fluid examination was made immediately and showed all of the findings I have suggested as diagnostic of this ailment. A blood count showed a very high per cent of large mononuclear lymphocytes. In our laboratory we conceive the theory that the patient has malaria if there are more than about eight per cent in a differential count of this type of white cells. In this case we found the estivo-autumnal malarial organism. Not knowing anything better to do, not having at hand the serum and being advised by Dr. Rosenow by wire that it was not then obtainable, we tried to do something for his malaria. He was given quinine dihydrochloride intravenously. I do not have the case record at hand and can not state accurately the amount he took, but he had sufficient to correct the blood condition so far as the malarial findings were concerned. I do not know if the quinine had anything to do with his recovery from the virulent encephalitis, but after a period of about sixty days of complete fatuity, he seemed well. Let me state that there was no time during this period when he could not be aroused from his lethargy. He was therefore not asleep, as he immediately lapsed into lethargy.

During this meeting a physician from one of the northern counties brought in a patient who has the condition brought out by the essayist, that is, he has the Parkinson syndrome,—he has Parkinson's disease in every particular, except that he does not have the tremor of the hands characteristic to this ailment.

Concluding, permit me to state that I believe this disease is infectious in origin, and that a rational means of attacking it would be with the serum. On the other hand, if the patient is fortunate enough to have malaria—a severe malaria, and you treat it in an intensive way, as I did with my patient who has just recovered—that might be helpful. There is no doubt about the malarial finding. He had a malarial temperature, far out of proportion to any that I have known in encephalitis. Perhaps the fact that this patient had malaria helped him to recover from his encephalitis.

Dr. A. E. Chace (Texarkana): I am sorry I can not give Dr. Thibault the exact chemical reactions which take place, but there have been a number of experiments that have been made in the Eastern laboratories and in a good many of the Western laboratories, especially in the university laboratories, which show very clearly that hexamethylenetetramin is one of the best antiseptics in the spinal fluid of a chemical nature that we know of. There is no question that hexamethylenetetramin given by the veins will produce formalin in the spinal fluid. How that happens I am sorry I can not tell Dr. Thibault; but if he will look up the literature I am sure he will find I am right.

Dr. Hunt (in response): I enjoyed the discussion. I didn't think I left anything in my paper for anybody to take a rap at me, because I was just reporting cases. I can't agree with Dr. Thibault on his rap at the quinine. If he will look over the literature, he will find men throughout the South who have had a few of these scattering cases, and every one of them that got any results at all got them from quinine. I don't know what good it does. The only case to which I gave the quinine is the one that is up and doing any good. I gave the serum to three cases; one of them died. Something helped him; he

got better before he died. But the other two cases are still on our hands, and of the Parkinson syndrome type, undoubtedly. So, in spite of what the eminent authority we have heard says, I shall continue the quinine. Dr. Koobs says that the onset is always slow. I have not found it slow. In three of my cases it was very fast. One fellow worked all week, and Friday night he couldn't sleep. Saturday and Saturday night he couldn't sleep. I saw him Sunday. I didn't know what was the matter with him, but he undoubtedly had encephalitis right then. He was a carpenter, and had been doing some fine work all that week. This six-year-old boy I reported was up awhile and was very sick in two or three days. The old maid, 67 years old, just took a spell of staying awake. I don't believe it is slow. I believe it is unusually fast.

Dr. Koobs: I was talking about the period of incubation. We don't know when the invasion commences.

Dr. Murry (in response): In answer to Dr. Thibault's question, I might say that it has been proven definitely that there is formic acid in the spinal fluid after heroic doses of hexamethylenetetramin. How it is I can not answer.

I just want to refer to the onset in the cases which I didn't take up in my paper. Three patients I have in mind now were all practically one to three weeks in developing the symptoms that I found. In the young lady I spoke of here specifically, the onset was three weeks from the time I saw her, and the symptoms had increased all the time, from simple restlessness. A quarter of a grain of morphine would give her no rest whatsoever. As far as hexamethylenetetramin is concerned, I would recommend that Dr. Hunt try it. I wouldn't object to trying his quinine, if I didn't know of something better. But I would like to recommend it to him whether he believes in it or not, and after trying it I feel that he will also advocate it. The patient had very severe headaches all the time, the one that was excited. The other two, I didn't report headaches because they were lethargic in their symptoms.

ACUTE EPIDEMIC ENCEPHALITIS. REPORT OF TWO CASES.

Pat Murphy, M. D., Little Rock.

The following is the history of two cases that manifested the signs of acute epidemic encephalitis, lethargic type, treated with quinine. Both cases recovered:

CASE HISTORY No. 1.

A young girl, age fourteen years, a student, became ill January 26, 1923, while in school. She developed a headache and became sleepy about 1:00 o'clock in the afternoon. When school closed at 4:00 o'clock she came home. She said that on her way home she could see two telephone poles where there was only one. Upon reaching home her temperature was 101 F. She was restless and could not sleep that night, wide awake and temperature reached 103. She began vomiting the next morning

and then became delusional, thinking she had lots of money in her bed in the pillow and under the sheets, also that the people were framing up against her. She also talked about entertaining a crowd of her little friends at an ice cream dinner at the Y. W. C. A. hall during the night. In the early morning she got up to the slop jar and had a convulsion with incontinence of the bladder and bowels, her temperature 99.

The following history was obtained from the relatives. I saw the patient on January 29th and found the following:

The pupils were contracted and did not respond to direct light. She was a little lethargic. She would go to sleep while answering questions, but was readily aroused. She remarked that she "Just could not stay awake this morning," while the night before she could not sleep. Upon looking at me she said I had two noses and four eyes. The night before she said her mother had two noses and four eyes. She was actively hallucinating in the visual sphere; she could see spider webs over the foot of the bed. She wanted her clothes, to return to school, saying there was nothing the matter with her. The urinalysis was negative to any pathological condition. On examination of the blood no malaria was found either on the thick or thin smears. The diagnosis of encephalitis was made and she was given quinine dihydrochloride, grains 7 1-2, intramuscularly. On the morning of the next day she received the same amount. Her temperature was 101. The next day she was given the same amount again, her temperature dropped to 99 and by the end of the third day there was no diplopia. Her mental signs had gone and she was a great deal better. The fourth day her temperature was normal and there were no mental symptoms manifested. She made a complete recovery and was back in school in two weeks, and up to the present time has no residuals of her condition and has never been ill. From all observation she is in normal condition.

CASE HISTORY No. 2.

A young girl thirteen years old, student, had measles in May, 1923. She was in bed for two weeks, made a good recovery and returned to school the first of June. One day while in school she became slightly excited and restless. At home that night she could not sleep. She became afraid, thinking that some one was coming in to do her harm or

carry her away. She could not keep from talking. This lasted two or three days and she got better, evidently made a complete recovery. In July she came to my office with a relative who gave the above history and the following signs were found and manifested: She would sit in the chair and become drowsy saying she was sleepy. She would answer questions and go right back to sleep. Her temperature was 100 F. She said coming to my office she could see two people where there was one. When she came to the door she saw two doors and said she didn't know which one to go through, when in fact there was just one door. She was afraid, saying she didn't want to stay here, she wanted to go back home and that somebody was after her. The pupils were slightly contracted and responded to light and accommodation. The upper and lower tendon reflexes were equal and not unduly exaggerated. On examination of the blood no malaria was found either on thick or thin smears. Diagnosis of encephalitis was made and she was placed on the following treatment: Quinine bisulphate, grains two, every two hours until six doses were taken, repeated for three days. The second day her temperature was 99 1-2, the mental symptoms were subsiding and there was no diplopia. She was still a little restless and lethargic on the third day. Her temperature was normal, apparently not sleeping, but was a little wakeful; did not sleep as she had been. The fourth day her temperature was normal, all of her mental symptoms had cleared and she had a complete insight. Up until now this claimant has not had any of the symptoms manifested at the time of her illness and from all appearances she is now entirely well.—(December 16, 1923).

PREMATURE PRESBYOPIA

William F. Bonner, Wilmington, Del. (*Journal A. M. A.*, Dec. 1, 1923), asserts that there is a relationship between hyperopia and premature presbyopia; occurrence of uncorrectable poor near vision; contracted ocular fields associated with general and focal infections; monocular and binocular color blindness occurs; exorhopia couples with good depth perception, esophoria and hyperopia with poor depth perception. Many cases of general infections, cardiorenal, neuropsychiatric and endonasal conditions are found among those who have premature presbyopia.

MONGOLIAN IDIOCY IN BOTH TWINS

August Strauch, Chicago (*Journal A. M. A.*, Dec. 29, 1923), records two cases of mongolian idiocy in twins, the first born of young, healthy parents. The occurrence of a mongolian idiot with a normal twin has been observed only in double ovum twins, as far as known. Mongolism in both twins has been described only in twins of the same sex. They are probably single ovum twins. Strauch believes that the conception of mongolism being due to an endogenic factor seems to find support in these observations.

MENIERE'S SYNDROME CAUSED BY ALLERGY

W. W. Duke, Kansas City, Mo. (*Journal A. M. A.*, Dec. 29, 1923), has observed Meniere's syndrome in two patients with severe allergy in whom no other adequate cause for the illness was found. Since, in each case, relief was obtained both by the use of epinephrin and by avoidance of substances to which the patients were sensitive, and since the symptoms were reproduced during well periods by the use of foods to which they were hypersensitive, it seemed justifiable to Duke to include allergy among the primary causes of the symptom complex known as Meniere's syndrome.

THE TREATMENT OF URETHRAL STRICTURE BY EXCISION

The history of urethral stricture as it is recorded in medical literature is reviewed by Granville MacGowan, Los Angeles (*Journal A. M. A.*, Dec. 1, 1923), and the technic of its repair is discussed in detail. In the author's operation, the intention is to restore the tube by approximating its cut ends in their entire circumference, and this, he says, is best achieved not by the laying of a circular stitch, such as was done by Mayo Robson with success after the excision of an annular stricture where the loss of structure was not more than one-fourth inch, and as was the practice of Konig, but by slitting the urethra and spongy body both anteriorly and posteriorly into three strips, or ribbands, one posterior and two lateral, using great care not to mangle the tissues and to have clean incisions. MacGowan reports no failures from the use of this method.

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Editorials.

THE SINGLE MEDICAL EXAMINING BOARD AGAIN.

The thanks of the duly qualified physicians of Arkansas are due Dr. Leonidas Kirby of Harrison for his timely letter in the Arkansas Gazette recently, urging the single standard in granting license to practice medicine.

Dr. Kirby is an active and leading member of the Arkansas Medical Society and his warning should carry weight among members of the next Legislature, which again will be asked to abolish the three medical examining boards in favor of one single board which will demand the proper high standard of education by applicants from all schools of medicine. He tells of the objection of a State Senator, to whom he wrote urging him to aid in getting through the Legislature a bill to remedy the handicap from which Arkansas suffers. The lawmaker replied that the regular practitioners merely were trying to obtain a monopoly—the very same absurd objection to which the Journal called attention in the December issue. The recent exposures of the open sale of diplomas by fake medical colleges has stirred up general interest in the matter and there is some hope of the desired legislation passing the next session.

Referring to the low standards under which license is granted by our present system, Dr. Kirby makes the startling statement that of 2,300 licensed physicians in Arkansas only 800 could come up to the standard required for work in the great war. The consequence was that Arkansas was the very lowest of all the States in the percentage of physicians fitted for practice in the war. As he points out the capable ones were sent to the front while the less capable remained at home—in many cases appropriating the practice of those who risked their lives in the war.

It would be a good thing if other practitioners would follow the lead of Dr. Kirby both in obtaining publicity for the outstanding facts in the newspapers and in writing personal letters to legislators. If anything will bring relief publicity will do it.

THE OLD YEAR AND THE NEW.

“Excelsior” is the slogan of the Arkansas Medical Society. The year 1922 established a new record of membership, as stated in the Journal one year ago. It is with pleasure and

gratification that we can announce that 1923 surpassed that record. The year closed with a membership of 1,156, the largest number in the history of the society. But, that is not enough. The efforts of all members should be directed toward further increase of membership until every eligible and desirable physician in the State is enrolled. The scriptural words "Unto him that hath shall be given" are constantly being demonstrated as true. The larger the number the more easy it should prove to obtain new members. It is the small, insignificant, struggling organization in which it is difficult to awaken interest and enthusiasm. When a society is numerically and otherwise strong, when the "big fellows" take a hand, why every other fellow wants to get in. Let us try to establish a larger record in 1924.

NOW TO ACCOMPLISH IT.

The State Society is, of course, dependent upon the growth of the county societies. Some hints may be given to the latter. To begin with, do not forget that dues for 1924 now are due and payable to the local secretaries. The importance of paying up promptly lies in the fact that prompt payment will enable the local secretaries to remit and report to the State secretary on time and thus establish the local societies as eligible to send delegates.

Another important factor is in the selection of officers of the county societies. Don't elect men simply as a matter of honor or of supposed influence based on their prominence in their profession. It sometimes occurs that presidents elected on that theory exert very little interest as far as the progress of the society is concerned, feeling that the society has honored itself by selecting so notable a president. The really desirable officer is the one who will give the necessary time and energy to the advancement of the society. The president should be one who will see that interesting programs are provided for each meeting, papers prepared on live subjects by practitioners capable of preparing them and discussion and interchange of views encouraged. Meetings should be made so interesting that no member will wish to stay away and thus non-members will be found asking to be admitted. The secretary should be one who will devote his spare time to the work, seeing that the dues are paid promptly, alive to getting new members, keeping records in good

shape and sending brief reports to both their local papers and the city papers for publication. Brief reports will be gladly used by the city papers and by the Journal also. Publicity is the very life of all organizations. Another matter to be remembered is the importance of holding occasional social sessions and dinners, also public meetings on sanitation and disease prevention. All these are factors in keeping alive interest in the county societies.

THE ANNUAL MEETING.

The annual meeting of the Arkansas Medical Society will be held at Fayetteville, May 20, 21, 22. Fayetteville, under the new railroad schedules, is more accessible than in earlier years and there is no reason why there should not be a very large attendance. Fayetteville has many attractions. Washington County is one of the leading fruit counties, with strawberries, peach and apple orchards throughout it. There is most beautiful scenery in the hills, and, with excellent roads, splendid drives, not exceeded in beauty and interest in the State, will be available. The State University is there, the alma mater of many of the members of the profession.

The program committee, in extending the invitation to every member to attend, promises an excellent scientific program as well as social entertainment. Those who wish to contribute papers should write the chairman of the program committee, Dr. J. M. Proctor, Hot Springs. Several distinguished visitors will be there and a good meeting is assured. Details will be given in later issues of the Journal.

Personal and News Items.

Dr. Geyer C. Wood of Grady visited in Little Rock during the holidays.

Dr. Earle H. Hunt of Clarksville has returned from a post-graduate course at Rochester, Minn; Chicago and St. Louis.

We wish to make the following correction in the personal items of last month: Dr. L. H. Stout of Brinkley was elected vice-president of the Tri-State Medical Society recently held in Memphis, Tenn.

The following officers of Lawrence County Medical Society were recently elected: Presi-

dent, Dr. T. C. Guthrie, Smithville; Vice-President, Dr. M. Allen, Walnut Ridge; Secretary, Dr. G. M. Watkins, Walnut Ridge; Delegate to State Society, Dr. J. C. Land, Walnut Ridge; Alternate, Dr. G. A. Warren, Black Rock.

To the members of the Arkansas Medical Society we wish to remind you that your dues for 1924 are \$3.00 and payable now. It is the consensus of opinion among the medical men of the State that nothing to which you contribute gives more real return, and in all probability the amount is but a small fraction of what we spend frivolously without anything worth while to show for the outlay.

FOR SALE.—Two real bargains in X-Ray machines for quick sale. One 10-inch hospital size auto control, also resistance control for Coolidge tube. \$1,000.00; worth \$1,750.00. One 7-inch machine, used, but better than new, for \$550.00. Demonstration and installation free. We also have a number of other used and new machines at bargain prices. For further information, address X-Ray, care Journal of the Arkansas Medical Society. (Advt.)

The many medical friends of Burroughs Wellcome & Company will be interested in the removal of this well-known firm's New York establishment to their new building at 9-11 East Forty-first Street. Located opposite the Public Library, just off Fifth Avenue, in the very heart of what is recognized as the most central and select business district of the city, this new building is easily accessible from every quarter.

A cordial invitation is extended to the medical profession by Messrs. Burroughs Wellcome & Company to visit at any time their new Exhibition Rooms to inspect the display of fine Chemicals, Galenicals and other products for which the firm has been so long and favorably known.

The Eighth Annual Clinical Session of The American Congress on Internal Medicine will be held in the Amphitheatres, Wards and Laboratories of the various institutions concerned with medical teaching, at St. Louis, Mo; beginning Monday, February 18, 1924.

Practitioners and laboratory workers interested in the progress of scientific, clinical and

research medicine are invited to take advantage of the opportunities afforded by this session.

Address inquiries to the Secretary-General,
Elsworth S. Smith, President,
St. Louis, Mo.

Frank Smithies, Secretary-General,
1002 N. Dearborn Street, Chicago, Ill.

TIPS FOR INCOME TAXPAYERS.

In the making of his 1923 income-tax return the business man, professional man and farmer may deduct from gross income all items properly attributable to business expenses. In the case of a storekeeper they include amounts spent for rent of his place of business, advertising, premiums for insurance against fire or other losses, the cost of water, light and heat used in his place of business, drayage and freight bills, the cost of repairs and maintenance to delivery wagons and trucks and a reasonable allowance for salaries of employees. A professional man, lawyer, doctor or dentist may deduct the cost of supplies used in his profession, expenses paid in the operation and repair of an automobile used in making professional calls, dues to professional societies, subscriptions to professional journals, office rent, cost of light, heat and water used in his office, and the hire of office assistants. The farmer may deduct amounts paid in the production and harvesting of his crops, cost of seed and fertilizer used, cost of minor repairs to farm buildings (other than the dwelling), and cost of small tools used up in the course of a year or two.

Deductions for contributions to corporations or organizations "organized and operated exclusively for religious, charitable, scientific, literary, or educational purposes * * * no part of the net earnings of which inures to the benefit of any private stockholder or individual" are deductible to the extent of 15 per cent of the taxpayer's net income for 1923, computed without the benefit of this deduction. Every church constitutes a religious corporation or organization for the purpose of this deduction. Donations to missionary funds, church buildings, pew rents, assessments and dues paid to churches are deductible.

Deductions for contributions to political campaigns are not allowable.

Obituary.

DR. JOHN FRANKLIN SANDERS—Dr. J. F. Sanders of Blytheville died December 29, 1923, aged 60. Several months ago he was stricken with paralysis and while he had rallied, he never quite recovered. Dr. Sanders graduated from the Rush Medical College in 1889. He was a member of the staff of the Blytheville General Hospital; city health officer; held office in his county medical society; former president of the Tri-State Medical Society; member of the Arkansas Medical Society and the American Medical Association.

DR. ROY W. DARR—Dr. R. W. Darr, aged 45, died at Atkins, December 31, 1923. He is survived by three brothers: Wm. E., J. E. and Irl Darr.

County Societies.

SEBASTIAN COUNTY

(Reported by J. D. Southard, Secretary.)

The annual election of the Sebastian County Medical Society held Tuesday evening December 4, 1923, resulted in the election of the following officers for the ensuing year: President, W. R. Brooksher, Jr.; Vice-President, M. E. Foster; Secretary, E. J. Brown; Treasurer, H. H. Smith.

FAULKNER COUNTY.

(Reported by J. S. Westerfield, Secretary)

At the regular meeting of the Faulkner County Medical Society, held on the 20th day of December, the following officers were elected: President, H. C. Burnett, Wooster; vice-president, J. M. Muse, Conway; secretary-treasurer, J. S. Westerfield, Conway; delegate, J. S. Westerfield, Conway; alternate, George Harrod, Conway.

BENTON COUNTY

(Reported by H. J. G. Koobs, Secretary.)

Rogers, December 30, 1923—The Benton County Medical Society met December 18, at Rogers.

The following officers were elected for the coming year: President, C. F. Perkins, Rogers; Vice-President, J. S. Thompson, Gravette; Secretary-Treasurer, H. J. G. Koobs, Rogers.

The next regular meeting will be held January 8, at Gentry.

UNION COUNTY

(Reported by D. E. White, Secretary)

At a recent meeting of the Union County Medical Society the following officers were elected:

President, S. J. McGraw, El Dorado; Vice-President, A. D. Cathey, El Dorado; Secretary-Treasurer, D. E. White, El Dorado; Chairman Committee on Program, G. D. Murphy, El Dorado; Delegate to State Society, F. P. Vines, El Dorado; Alternate, J. G. Mitchell, El Dorado.

DESHA COUNTY

(Reported by W. H. DeClark, Secretary.)

Desha County Medical Society met at McGehee Wednesday, December 5, at 8 p. m. Dr. H. T. Smith presiding. The following members were present: Smith, Chenault, MacCammon, Isom, Kimbro, Applewhite and DeClark.

The following officers were elected for 1924: Dr. Vernon MacCammon, Arkansas City, President; Dr. W. H. DeClark, McGehee, re-elected Secretary-Treasurer; Dr. H. T. Smith, McGehee, Delegate to State Meeting; Smith, Chenault and DeClark, as Board of Censors.

JEFFERSON COUNTY.

(Reported by J. T. Palmer, Secretary)

The Jefferson County Medical Society met in regular session, with President J. M. Lemon presiding, December 4, 1923, at the Hotel Pines, where luncheon was served to the following members and guests: Hankinson, Woodul, McMullen, Breathwit, Luck, Caruthers, Gill, Lemon, Jenkins, Troupe, Shelton, Capel, Cunningham, Lowe, Davidson and Palmer.

Several clinical cases reported, after which officers were elected for the following year as follows: J. M. Lemon, president; C. K. Caruthers, vice-president; J. T. Palmer, secre-

tary-treasurer; E. C. McMullen, delegate to the State convention.

Several enthusiastic talks were made for the good of the Society, and each member pledged himself to the Secretary to make the coming year the best in the history of our medical organization.

MISSISSIPPI COUNTY

(Reported by Flem D. Smith, Secretary.)

The Mississippi County Medical Society met in regular monthly session at Blytheville, Tuesday December 11.

The following members were present: Hill, McRae, McCall, I. R. Johnson, Usrey, Husbands, Grimmer, Wilson, Saliba and Smith. Visitors: J. H. Stidham, F. B. Elliott and S. P. Martin, Blytheville, J. H. Hill, Memphis and Thad Cothorn, Jonesboro.

The meeting was held at the Blytheville Hospital and the hospital management tendered an appetizing banquet to which all present did ample justice.

The following officers were elected for the coming year: President, E. V. Hill, Vice-President, H. C. Sims, Secretary-Treasurer, F. D. Smith, re-elected; Censor, W. S. McCall, Delegate, F. L. Husbands, Alternate J. H. Stidham. J. H. Stidham, F. L. Husbands and W. A. Grimmer, Blytheville were elected to membership.

INDEPENDENCE COUNTY.

(Reported by T. N. Rodman, Secretary)

The Independence County Medical Society met in regular session at the county judge's office, Batesville, December 10, 1923.

Present: Moore, Evans, King, Craig, Hinkle, Dorr, Lawrence, Gray, Johnston and Rodman.

Officers were elected for the ensuing year by acclamation: President, W. P. Moore; vice-president, K. W. King; secretary, T. N. Rodman; delegate to State meeting, M. S. Craig; alternate, C. G. Hinkle.

A paper regarding the sale of Christmas seals was read, and the society voted unanimously to endorse the sale.

The society discussed State medical boards, and voted unanimously in favor of one examining board.

Dr. W. P. Moore read a paper on "Management of Neurasthenia," and Dr. F. A. Gray

read one on "Empyema." Both papers were fully discussed.

The members present paid dues for the coming year. Adjourned to meet Monday night, February 16, 1924.

FRANKLIN COUNTY

(Reported by Thos. Douglass, Secretary)

The Franklin County Medical Society held its regular annual meeting at Ozark, December 11. Present, Dr. O. M. Bourland, Van Buren, Drs. S. C. Grant and J. A. Wigley, Mulberry and Drs. Earle Hunt, Annie Hays and R. N. Manley, Clarksville as visitors and Drs. Porter, Post, Blackburn, Gibbons and Douglass members of the Society. Rev. J. B. Stevenson and Miss Onota Porter, our nurse, attended the banquet. We had a delicious banquet served at the Bristow Hotel with after dinner speeches by all the visitors, Dr. E. W. Blackburn, Vice-President acting as toastmaster.

Officers for the new year: President, Dr. J. L. Post, Altus; Vice-President, Dr. W. C. Porter; Secretary-Treasurer, Thos. Douglass; Delegate to State Society, Dr. W. C. Porter; Alternate, Dr. W. J. King.

Dr. Bourland read a paper on "Medical Cults and Their Cure." Dr. Grant read a paper on "Morphine scopolamine anesthesia in Labor." The meeting was very good and well attended in spite of a dreary down-pour of rain all day.

HEMPSTEAD COUNTY

(Reported by J. H. Weaver, Secretary)

At a regular meeting of the Hempstead County Medical Society recently held in Hope the following officers were elected for 1924: M. V. Russell, president, W. M. Garner, vice-president; and J. H. Weaver, secretary-treasurer.

Book Reviews.

A Clinical Guide to Bedside Examination—By Drs. Elias Jazic and Luger of Vienna, Austria. Arranged and translated by Wm. A. Brams, M. D., Chicago. Published by Rebman Company, New York.

This little book gives a detailed description of physical examinations of a patient at the bedside. The methods suggested will give a

thorough examination and nothing will escape observation.

Clinics and Collected Papers of St. Elizabeth's Hospital, Richmond, Virginia.—Volume of 1922, contributed by the Staff. Illustrated. Published by C. V. Mosby Company, St. Louis, Missouri. Price, \$7.50.

This volume represents papers by members of this hospital staff with clinical reports showing the practical points on the diagnosis or management of the case. A brief description is given in this issue of the manner in which the hospital is managed. Chapter 11 is by Dr. J. Shelton Horsley on "Clinics on Surgery and Urology."

Textbook of Therapeutics Including the Essentials of Pharmacology and Materia Medica—By A. A. Stevens, M. D., Professor of Applied Therapeutics, University of Pennsylvania, Philadelphia. Sixth Edition, entirely reset. Octavo of 793 pages. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth, \$6.25 net.

The author of this volume now presents the sixth edition and has borne in mind the original object of the book, which was to present in a concise description the most important pharmacologic reactions and show their practical use in influencing the various disturbances that occur in disease. Under "Applied Therapeutics" the last chapter pertains to the treatment of "Common Diseases of the Skin."

International Clinics—A quarterly of illustrated clinical lectures and especially prepared original articles. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, M. D., Philadelphia. Volume II, Thirty-third Series, 1923. Published by J. B. Lippencott Company, Philadelphia.

Among the interesting articles in this number is "Insulin and Diet in the Treatment of Diabetes" by Dr. Seale Harris, of Birmingham, Alabama. Dr. Harris says "It is too soon to predict the curative effects of insulin, but with the known results that have been achieved with its use there can be no question of its permanent place in diabetic therapy. It is probable that by giving rest to the pancreas in the early stages insulin will cure many cases permanently. It is certain that it will at least bear the same relationship to diabetes that the thyroid extracts have to hypothyroidism."

Excursions Into Surgical Subjects—By John B. Deaver, M. D., Emeritus Professor of Surgery, University of Pennsylvania; Surgeon-in-Chief, Lankenau Hospital, Philadelphia; and Stanley P.

Rieman, M. D., Assistant Professor of Experimental Pathology, University of Pathology, University of Pennsylvania; Chief of the Department of Pathology and Bacteriology, Lankenau Hospital, Philadelphia. Octavo volume of 188 pages and 30 illustrations. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$4.50 net.

Dr. Deaver presents this small volume hoping it would stimulate those interested in surgery to continue investigations and eventually develop new paths which may become landmarks to future surgeons.

The following topics are considered:

Peptic Uleer.

Jaundice.

Diseases of the Bile-passages.

Trials, Tribulations, and Joys of a Surgeon.

Some Surgical Conditions of the Intestinal Tract.

The Contribution of Pasteur to Modern Surgery.

Medical Education and Educators.

Living Pathology.

OPHTHALMIA MYIASIS EXTERNA, DUE TO LARVAE OF OESTRUS OVIS.

H. H. Stark, El Paso, Texas (*Journal A. M. A.*, Nov. 17, 1923), reports a case which he says is the first of its kind recorded in American literature.

UROLOGIC PHASE OF PERNICIOUS ANEMIA.

Ira R. Sisk, Madison, Wis. (*Journal A. M. A.*, Nov. 17, 1923), reports the case of a man, aged 57, whose symptoms of difficult urination and retention of urine were due to the spinal cord changes in early pernicious anemia rather than to obstruction from the prostate gland. Sisk says that in some cases the bladder symptoms may develop early in the course of the disease and before a diagnosis of pernicious anemia has been made. In elderly men, the urinary symptoms of pernicious anemia may be confused with those of hypertrophy of the prostate gland, unless accurate means of diagnosis are employed. In cases of spinal cord bladder in pernicious anemia, as in spinal cord bladder from other causes, the close co-operation of the neurologist, internist and urologist is of great importance.

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Original Articles.

EPIDEMIOLOGY AND THE REPORTING OF INFECTIOUS DISEASES IN ARKANSAS.*

Dr. William Holt, Epidemiologist,
Arkansas State Board of Health.

I trust that I do not need to tell you as I do most people to whom I am introduced, what that long word epidemiology means. It means of course the science and study of the epidemic diseases, or really all the infectious diseases, some of which, like tuberculosis, are not epidemic. An epidemiologist is a person who specializes in these diseases, not in treatment, but as to source or origin and method of transmission. Epidemiology is concerned with the incidence or prevalence of these diseases by place and time, age, sex, race, occupation, etc., their clinical and laboratory diagnosis, their mortality, their sources and modes of infection and most of all in their prevention.

Now it is an axiom in public health that the first essential for any health officer in the control of any epidemic disease is a *prompt* knowledge of *all* cases in his district. I emphasize "a prompt knowledge of all cases." The most energetic health official can not investigate and quarantine a case of which he knows nothing; and it is always the missed or late reported cases that cause an epidemic. Just as it takes only one burning house that is not promptly reported and put out to set a city on fire, or takes only one neglected hole in a dam to cause a flood, so it takes only one unreported and non-isolated case of smallpox or measles to start an epidemic.

What are the facts, gentlemen, about our reporting of communicable diseases in the State of Arkansas? The best check that I know of this matter is shown in this chart, in which I have shown by red and black lines drawn to the same scale the comparative numbers of cases reported of the chief infectious diseases and the estimated number of deaths caused by each of these diseases in the State in 1922. Since only 75 per cent or less of the actual number of deaths was reported in our State in 1922, I have added a third to the number of deaths reported for each disease in order to obtain these estimates of total deaths.

How do these numbers compare then for the cases reported and the deaths? Let us take the first on the chart, acute anterior poliomyelitis or infantile paralysis. Eight cases, but 20 deaths! An absurd state of affairs. As the mortality averages about 25 per cent, there should have been about four times as many cases as deaths, that is, about 80 cases, of which only eight, or a tenth, were reported. Fortunately this fatal disease seems not to be very contagious, yet it is certainly spread by personal contact and should be promptly isolated for two weeks. The diagnosis of "polio" is often difficult, which may account partly for its extremely poor reporting.

For diphtheria we have 190 estimated deaths and 558 reported cases. Here the figures first look reasonable; but what mortality do they apparently show? Just 34 per cent, whereas, nowadays our diphtheria mortality averages nearer ten per cent, and, if this was the actual mortality in 1922, there were some 1,900 cases instead of 558. With free diagnosis of throat cultures afforded every doctor in the State by the Hygienic Laboratory and the characteristic symptoms there seems to be no good excuse for failure to diagnose this fatal disease, and no excuse whatever, once diagnosed, for not reporting it. Of course,

*Read before the Conference of Local Health Officers, held in Little Rock November 1-2, 1923.

some cases don't call a physician, and a great many lives are lost because the doctor is called too late or not at all; but too many doctors, who are careless about reporting diphtheria, also make the grave mistake of not giving antitoxin as soon as they really suspect diphtheria, but waiting until a typical membrane has developed or they get a positive report on a throat culture.

For malaria we have the second largest number of cases reported for any disease, 4,217, yet for the 1,100 estimated deaths it is of course only a small fraction of the actual cases, which probably, including chronic as well as new infections, amounted to over a hundred thousand. At least 25,000 cases probably more, were treated by physicians. Here we have a fairly easy disease to diagnose, especially with the free blood examination furnished by the State Hygienic Laboratory, and it is of fundamental importance to know how many cases we have in each community in order to gauge the success and the need of malaria control work. Yet we get only four or five per cent of the cases reported.

For measles we have equally absurd numbers for both cases and deaths. Evidently very few of our doctors know that when a child dies of pneumonia or any other complication of measles the death should be ascribed to the primary cause; hence the absurd number of five deaths reported for this cause in Arkansas in 1922. As a matter of fact the average mortality from this disease in the Registration Area is over 10,000, making a rate of 130 per million, and this makes the probable number of measles deaths in Arkansas about 250! With the usual mortality of 2 or 3 per cent there would be 8,000 to 12,000 cases. In short neither the deaths nor the cases of measles are being reported by the physicians of Arkansas practically at all. This probably means that they are also doing very little to control it.

For pellagra we have 329 cases reported for 270 estimated deaths. I can not calculate any probable number of cases, because it is a very chronic disease and no figures are given for its mortality. There were probably several times as many cases in 1922 as were reported; Dr. Garrison thinks about a thousand. Complete reporting of cases would help greatly in solving this important public health problem.

The absurd situation for pneumonia of only 33 cases reported for 2,000 estimated deaths

is explained by the fact that pneumonia has so recently been made notifiable that most physicians do not yet know or remember the fact. Several large cities have been reporting it, however, for some years, and have also isolated the cases and placarded the house. It should be treated as a very dangerous communicable disease, not very contagious, fortunately, but still contagious, and the chief cause of death among all the two hundred odd cases.

The next two diseases on the chart, scarlatina and smallpox, are the only ones that seem to be fairly well reported. For scarlet fever eight deaths and 284 cases show a usual mortality for a mild climate of 3 per cent. Although in the South scarlet fever often has a death rate hardly higher than measles, the general public still regards it as vastly more serious; hence they usually call a doctor, and this is probably the chief reason why it is much better reported; the doctor also considers scarlatina much more important to isolate and quarantine.

The relation of cases to deaths for smallpox, 158 to 1, seems at first to be wrong, but as a matter of fact in recent years with some exceptions the mortality has been actually as low as this, less than one per cent. If we had all infectious diseases as well reported as scarlet fever and smallpox, we might hope to rival Mississippi, which claims to have 95 per cent of all cases of communicable disease reported.

In pulmonary tuberculosis we have a similar situation to poliomyelitis—more than twice as many deaths as cases. If we adopt the usual estimate of eight consumptives living to each dying, we should have about 13,000 cases, most of which should have been reported.

For typhoid 349 deaths, if the usual mortality of about ten per cent prevailed, means about 3400 cases. As only 672 were reported, the reporting of this most important disease in public health work reached only about one fifth in completeness.

Whooping cough is very poorly reported with only 371 cases and about 70 deaths, for the mortality is nearer two per cent than the twenty apparent from the reported cases and deaths. As in measles many deaths that should have been attributed to pertussis as the primary cause are assigned to pneumonia or other complication, so that there were probably at least twice as many deaths from pertussis in 1922, say 150. Indeed the aver-

age pertussis death rate for the ten Southern Registration States in 1920 was 12.9 per 100,000 population, which would make 235 for Arkansas. Allowing 50 cases to each death, for 150 deaths we should have had no less than 7500 cases or only one case in twenty reported.

The situation in regard to syphilis is very similar to that of measles; both deaths and cases are very poorly reported but deaths much the worse of the two. Instead of a minor cause of death experts agree that it is really a major cause ranking with tuberculosis, cancer and pneumonia. And, if about 5 per cent of our population are syphilitic, it is conservative to suppose that at least 1 per cent consulted physicians during the year for acute or chronic symptoms and should have been diagnosed and reported. One per cent of 1,800,000 is 18,000, about five times the number actually reported.

A while ago I likened an epidemic to a big fire and said that the only way to stop both at the start and so prevent serious damage, whether to property or to health and life, was to report the first case or the first burning house at once to the health department or the fire department and for the department concerned to lose no time in stopping the spread of that contagion or that fire. You may think the simile is far-fetched because a fire must be recognized and reported and the fire engine turn the hose on it within a very few minutes, if there is to be a good chance of saving the building; while it takes days as a rule for a case of measles or smallpox to be diagnosed, reported and quarantined. Yes, and it is indeed fortunate that even influenza does not spread literally "like wild-fire." But this slower speed is a difference in degree not in kind, and it is just as true of an epidemic as of a conflagration that they can be "nipped in the bud" only at the very beginning, and when they get a good start they are liable to destroy all the combustible buildings or susceptible people in the city. Moreover, just as we can make buildings fire-proof, so, but with vastly less expense we can make people by vaccination proof against smallpox, against typhoid, against whooping cough, against rabies and most recently against diphtheria.

Gentlemen, do you realize that epidemiology was only guess work up to forty years or less ago, and most of the guesses were wrong?

The wisest doctors of the last generation believed that many infectious diseases, especially malaria, typhoid and diphtheria, originated by "spontaneous generation" in sewer gas, night air, decaying animals and vegetables and all kinds of dirt. They taught their mistaken notions to the public, and unfortunately a great many people, I think the majority in rural districts, still believe this discarded doctrine. That is the simple explanation why they think the chief job of a health officer is to look after the garbage, plumbing and dead dogs and cats rather than to get all contagious disease cases reported and isolated promptly and to get all school children vaccinated against smallpox, typhoid, pertussis and diphtheria.

Modern epidemiology, however, is based on a sure foundation of proved scientific discoveries in bacteriology, immunology, serology and all branches of scientific medicine. There are about 30 infectious diseases, not counting the intestinal parasites, occurring at all frequently in the U. S. A., of which 25 are on the list of reportable diseases in Arkansas; and we know the germs of all but ten of them, viz: poliomyelitis, chicken pox, smallpox, scarlet fever, dengue fever, measles, mumps, trachoma, rabies and Rocky Mountain fever. Only four of the ten cause any considerable number of deaths, viz: poliomyelitis, smallpox, scarlet fever and measles. Even for these ten diseases of unknown etiology we know the mode of transmission or infection in practically every case, so that we can prevent them about as well as the diseases of known etiology like typhoid.

Indeed, two of this group, smallpox and rabies, are among the conspicuous achievements of preventive medicine, which has found a way of eradicating smallpox from a whole nation (Germany) by universal vaccination before infection and a nearly 100 per cent efficient vaccine for preventing rabies after infection. Typhoid is theoretically as easily preventable as smallpox by vaccination, but has practically been reduced more in the civilian population by sanitation of water and milk. The mortality from diphtheria has been reduced greatly by the general use of antitoxin from 43 per 100,000 in 1900 to 14 in 1918. We have had much less success, however, until recently in preventing the disease than in saving lives. Now the new method

of immunizing children by the toxin-antitoxin mixture has been proved so effective in New York and elsewhere that we can certainly stamp out this worst disease of early childhood just as fast as we can educate parents to take advantage of it.

Modern preventive medicine is indeed modern, and an up-to-date health officer must know a great many things that were not taught even in the best medical schools twenty or thirty years ago, many of them not ten years ago. The ideal thing of course is for all health officers to have a year or two of special training, just as men take post-graduate work in surgery, diseases of the eye, etc. Half a dozen of the leading medical schools now give such work leading to special degrees; but a census taken by the American Public Health Association showed that of 215 full-time city and county health officers only 6 or 3 per cent had had such training. The next best thing it seems to me is to buy a late edition of a complete textbook like Rosenau's Hygiene and Preventive Medicine and study it. I wish also to urge every health officer in the State to join the American Public Health Association and subscribe to its official journal, The American Journal of Public Health. The public has a right to expect their health officers to keep up with the advances in his line, which he simply cannot do without reading at least the Journal of the A. M. A. and that of the Public Health Association.

Another essential to success in local health work is to get the active co-operation of as many practitioners as possible and also the school superintendent and teachers, ministers, judges, police, leading business men and women. Leading sanitarians all over the country are paying more and more attention to education of the public in health matters as the best way if not indeed the only way to get general support and co-operation in any sort of public health work.

Let me give you an example of the great possibilities in this line in preventing those contagious diseases of children, which have always been the despair of health officers, who find the usual method of attempted control by quarantine after the patient has been contagious for a couple of days, as in scarlatina or measles, or even two weeks in whooping cough, fails to control.

The well-to-do suburb of Milwaukee, Sherwood, Wisconsin, 3,000 people, after having

219 cases of children's diseases in the school year 1917-18 got a new health officer, who was a high school principal and inaugurated a radically new policy. By an intensive campaign of education supported by the doctors and town authorities he induced the people all to agree to the new idea of "isolation first and diagnosis afterward." That is, they agreed if a child had any sort of a rash, running nose, sore eyes, fever, cough or other symptom of some illness, to keep the child out of school and at home away from other children, to notify the health officer and even to let a placard be put on the house saying "Disease Suspected," "Measles Suspected," etc. After a few days a physician decided what the trouble was: If it was a contagious disease, the sign was kept up and the disease had had no chance to spread; if not contagious, it was taken down and no harm was done. The teachers all co-operated by excluding from school any child who had any suspicious symptom, and such child was not permitted to return until it had a certificate from a physician that it was not contagious. This new policy was so successful that during the first school year, 1918-19, in which it was in force, there were only 23 cases of children's diseases or about one-tenth as many as occurred under the old system. Until we get vaccines against measles, chicken pox and scarlet fever, which will prevent them as well as our present vaccines for smallpox, typhoid and diphtheria, the Sherwood method of "isolation first" is the only way I know that has really succeeded in preventing these epidemic children's diseases. I recommend it heartily to you health officers of Arkansas. The first town in the State that adopts this progressive policy will indeed put itself on the public health map, and its health officer will deserve every honor that can be bestowed.

The State Board of Health offers the following kinds of service to aid the health officers and other physicians in the State to diagnose, prevent and treat infectious diseases. First, the Hygienic Laboratory examines specimens free for diagnosis of typhoid, malaria, syphilis, gonorrhea, tuberculosis, rabies in dogs and other animals, feces for hookworm and throat cultures for diphtheria and water for number of bacteria and colon bacilli. It also furnishes free typhoid vaccine in 15 cc. bottles when the doctor will give it free. Specimens of tissue are also examined free for cancer.

The State Board of Health has entered into a contract with the Lederle Antitoxin Laboratories to furnish all sorts of biologics such as the various vaccines, antitoxins and the toxin-antitoxin mixture at greatly reduced rates. Give your people the advantage of their very low prices. This is the largest manufacturing plant of exclusively biological products in the world. Ask your local druggist to carry Lederle's biological products. He gets 25 per cent profit and can still sell them at the low rates given on the card.

Then, in case of an epidemic which the local health officer and doctors are unable to control, or when they want an expert to decide

advice how to check the spread of the disease and how to prevent its recurrence.

The Bureau of Sanitation has made extensive hookworm surveys in the past and during recent years has made malarial surveys for many towns, showing them free where their mosquitoes were breeding, how best to stop it and the probable cost.

Finally the board has drawn up, printed and distributed to all health officers a complete manual, dated October, 1922, "Rules and Regulation of the State Board of Health of Arkansas," which gives detailed instructions concerning the reporting, quarantining,

COMPARISON OF REPORTED DEATHS AND CASES WITH ESTIMATED DEATHS AND CASES OF THE PRINCIPAL REPORTABLE DISEASES IN ARKANSAS IN 1922.

DISEASE	Reported Deaths	Estimated Deaths on Basis of 75% Reported	Reported Cases	Apparent Cause Mortality from Estimated Deaths and Reported Cases	Average Mortality in United States 1922	Estimated Cases
Epidemic Poliomyelitis.....	15	20	8	-----	25%	80
Diphtheria	140	190	558	34%	10%	1900
Influenza	377	500	4541	11%	1-5%	10,000 to 50,000
Malaria	825	1100	4217	26%	1%	100,000
Measles	5	*250	195	-----	2-3%	8,000 to 12,000
Pellagra	201	270	329	82%	?	1,000?
Pneumonia	1512	2000	33	-----	25%	8,000
Scarlatina	6	8	284	3%	2-3%	300-400
Smallpox	1	1	158	0.6%	1.5†	150-200
Pulmonary Tuberculosis.....	1311	1750	724	-----	?	13,000
Typhoid	256	340	672	50%	10%	3,400
Pertussis	52	*150	371	40%	2%	7,500
Syphilis	50	65?	3401	2%	?	18,000

*Estimate not based on reported deaths but on the 1920 death rate for Registration Area.

†Case mortality of smallpox in Southern States varied in 1922 from 0.1 to 5.9%. In nine States it was below 1.0%.

a disputed diagnosis, the State Board sends the epidemiologist, or a sanitary engineer if it is a water-borne epidemic, who establishes the diagnosis when doubtful and gives expert isolating and releasing of all the infectious diseases, also the State laws on the reporting of births and deaths, burial permits and all health regulations.

In closing this talk I wish to urge all of you local health officers to do the following seven things during the coming years:

1. Study the "Rules and Regulations" above mentioned and follow them the best you can.

2. Report every week to the State Board all the cases of the 28 notifiable diseases, also pneumonia, that you know about. Leave no stone unturned to get all of the communicable disease in your district reported, and excel Mississippi. Speak to your local doctors at your medical society about reporting; furnish them with plenty of franked postcards for their reports; and if you have no reports from any doctor during a week, call him up on the phone and ask him whether he has had any to report. Warn a doctor when you know he is failing to report notifiable diseases, and if he does not come to terms, swear out a warrant for him or report him to the State Health Officer, giving specific information.

4. Teach your own families and as many other people as you can how the common infectious diseases may be avoided. Try especially to reach the older school children and their parents and dispel prevalent false ideas and teach the modern truths.

5. Urge the protection of all school children and even more of the younger children from six months to six years against diphtheria by the toxin-antitoxin mixture. Read the article in the A. M. A. Journal for February 17, 1923, and read a paper on the subject at your medical society and get their endorsement and co-operation on it.

6. Insist on the School Board and principal carrying out the State vaccination law. The law has teeth in it and can be enforced. Get 100 per cent vaccination in your schools.

7. Unless your town already has a pure, safe water supply and a sewerage system, preach their fundamental importance to health in season and out of season. Also work for improving the milk supply and getting children to drink more sweet milk.

ROLE OF TRAUMA IN THE ETIOLOGY OF ORGANIC AND FUNCTIONAL NERVOUS DISEASE

The assertion that trauma may originate cerebral tumors, according to S. A. Kinnier Wilson, London, England (*Journal A. M. A.*,

Dec. 29, 1923), is unjustified and obsolete. This is also true of disseminated sclerosis. Various cases of neurosyphilis, including tabes and general paralysis are on record, in which an apparent connection between trauma and the appearance of symptoms of general paralysis for example, is sufficiently impressive. In the absence of spirochetal infection no one will now admit that trauma, *per se*, can cause neurosyphilis in any of its manifestations. Can it actually initiate a morbid process on the part of the spirochete, in the sense that the latter otherwise would have remained forever latent and innocuous? Put thus, the question can scarcely be answered in the affirmative; yet who shall say that a direct negative represents the only possibility? Since there must be some limit to the interval of time elapsing, after an alleged injury, ere symptoms appear, Wilson suggests that in the case of organic nervous disease it should be restricted at the widest to one week. The author's general standpoint is that he is unable to understand how a single trauma can cause a progressive neural degeneration of abiotrophy; still less a progressive neural toxidegeneration. He is convinced that the solution should be sought in the biochemical field of intrinsic neural "life and death," and not glibly assign progressive degenerative processes to the action of a "shock"; even assuming a concussion so bad as to produce, on a small scale, fragmentation of myelin, we know, as a histologic fact, that scavenging takes place very promptly and that neural regeneration is equally sure. This being so, the view that trauma may on occasion cause neural abiotrophy of a progressive character is opposed to the facts of neuropathology. As for epilepsy, Wilson believes with Turner when he insists that "it is difficult to avoid the conclusion that something more than local tissue alterations are requisite for the production of the seizures of traumatic epilepsy, and the determining agent, in my opinion, is an inherited or unborn constitutional predisposition to nervous instability and epilepsy." The war has shown a thousand times how the genuine effects of concussion, cranial or spinal, pass off eventually, with a complete return to the normal; but if they persist, in the absence of evidence of objective change, it may be taken as an infallible rule that the condition has ceased to be one of concussion. Conscious and unconscious motives also must be taken into account.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

A CALL TO MEMBERSHIP

What follows should engage the attention of every member of the Arkansas Medical Society.

The annual meeting this year will be held in Fayetteville, May 20, 21, 22.

Nothing new in that announcement. It has been made in the last two issues of the Journal.

Therefore do not stop reading at this point. Read on.

Here are some of the "big guns" of the profession who are on the program:

Dr. James Kennedy of the Joseph Price Hospital, Philadelphia.

Dr. James Case, Roentgenologist, Battle Creek Sanitarium.

Dr. W. A. Evans, member of the editorial staff of the Chicago Tribune.

That is a pretty fair roster of talent, is it not? It is.

In addition, two members of the faculty of the University of Arkansas will talk on the relation of chemistry to medicine, and tell of some new discoveries regarding nutrition.

Dr. Evans will be heard twice. He is on the scientific program and also will be the principal speaker at the public session.

That is fairly good for a starter.

In addition one or two other noted physicians will address the meeting, if our plans are carried out. However, we can assure you now that the meeting will assume an importance equal to an intensive post-graduate course.

With this much in advance, the question arises, brother members, "Can you afford to miss this meeting?" The answer should be unanimously and emphatically, "No."

It is with much pride we announce our membership now is the largest in the history of the society. With 1,176 members and with the prospects of a very excellent program, the attendance should be a record breaker.

When the time comes drop everything and come along. You can afford to make some personal sacrifices rather than to be an absentee.

The program is not entirely complete, and if there are those who have a message or a paper, or a talk, or wish to appear on the program with anything of interest, they should write at once to the members of the

committee on program, Dr. J. M. Proctor, Hot Springs; Dr. E. F. Ellis, Fayetteville, or to the Secretary.

HOW CONFIDENCE IN THE PROFESSION IS SHAKEN

In several issues of the Journal reference has been made to the position in which the profession is placed by the contrary evidence given by physicians in criminal cases; as, for instance, in the notorious Thaw case, and a score of others, in which physicians for the State swear that, in their opinion, the defendant is insane and the physicians for the defense are equally convinced of his sanity, the answers in both instances being based on hypothetical questions embodying all the conditions relating to the crime and the defendant's connection therewith.

As has been pointed out, there are but two alternatives for the layman to choose, namely, either the physicians are paid large fees and testify accordingly to which side employs them, or that guessing rather than exact analysis is the basis of their more or less valuable opinion. In either case, the confidence of the layman in the knowledge or honesty of the expert is shaken if not destroyed.

In the public prints on a scandal of national scope, another episode bearing on this subject serves to further shake the public confidence in the profession. A certain high official implicated in a financial transaction, which takes on the ugly shape of bribery in office, is summoned to appear before an investigating committee. He travels a long way to reach the Capitol; but when the day arrives his physicians aver that he is physically unable to withstand the strain of testifying, that he is on the verge of a nervous collapse, and it is indicated that to encounter such an ordeal dire results might follow.

Now, it is not supposable that any man exposed to such fire of criticism in the public newspapers should feel in the best of health and spirits; but that the members of the United States Senate, composing the committee of investigation, lacked confidence in the dictum of the man's physicians is in evidence that they refused to take their word for it and named a committee of physicians of their own choosing to examine the patient. On their report the sick man was made to appear.

Now, there we have the same condition as obtains in the experts testifying in criminal

trials. There are the two alternatives. The paid physicians are either wholly mistaken in their opinion or their judgment is swayed by the fee in such cases paid and provided. In the one case the confidence of the layman is shaken in the skill of the practitioners and in the other confidence is shaken in their unbiased honesty.

This is not to be taken as expressing the opinion of the editor, but that it does express the attitude of the public cannot be questioned. On the report of the physicians sent by the committee the patient appeared and neither sudden death nor relapse or any other serious consequence followed. On the contrary, the patient was able to appear again a few days later before the committee.

This is the practical answer to the predictions of the patient's physicians. They opined that he could not safely appear in his physical and mental condition without the risk of dire results; but he did appear and no dire results ensued.

The whole system of expert testimony is wrong. Doctors are but human. Without any downright dishonesty of purpose the opinion of the physicians handsomely paid, may perchance be slightly swayed in the interest of his employer. Court experts should be paid by the State in criminal cases, then there could be no bias, one way or the other. In such a case as is under discussion a physician of the public health service, already in the pay of the government, should be chosen. As it stands, nothing so shakes the faith of the great public in the medical profession as do exactly opposite opinions based on exactly the same facts. From any angle the profession is discredited and the public is very apt not to differentiate between individual members of the profession and the profession generally.

Editorial Clippings.

HONESTY IN MEDICAL PROPAGANDA

The fundamental basis of the practice of medicine is honesty.

The fundamental basis of the friendly association of one doctor with another is honesty.

The fundamental basis of the appeal of doctors to the public for a higher standard of medical practice is honesty.

Diagnostic ability cannot take the place of honesty.

Skillful fingers cannot take the place of honesty.

Glowing arguments cannot take the place of honesty.

There may be varying degrees of knowledge and skill among doctors, but there is only one standard of honesty.

Every person, even the most ignorant, knows what honesty is.

An honest man is sure of his facts, and is ready to defend his words with his actions. He is kind, and realizes that dishonest words and arguments "come home to roost" to plague him who puts them forth.

The fundamental basis of the campaign for better medical laws is honesty—honesty of one doctor with another; of the doctor with his patients; and of the medical leader with the public.

Doctors are very human; and it is not strange that they may sometimes doubt one another's motives and disagree publicly. If 95 per cent of the doctors of New York State are white, and five per cent are streaked with black, the whole profession appears to the public to be at least a little grayish. If one medical politician makes absurd or impossible claims, a cloud is cast on all medical leaders.

What is the object of these seeming platitudes? The few medical leaders who are setting the pace in the legislative workshop must have the honest, whole-souled support of the ten thousand physicians who will have the dominating influence with the members of the Legislature. Already the leaders have diagnosed threatening difficulties which have arisen largely because of suspicion—that mental twist which looks for a tinge of dishonesty in another's motives. We will call attention to some of the molehills which may become impassable mountains of opposition unless they are honestly faced:

1. Ascribing improper motives to the leaders.

2. Doubting the word of the leaders (and also the editors' promises).

3. Acting without considering all sides of a question. (Something for county societies to think about.)

4. Quoting inaccurately in history as well as figures.

5. Letting George do it.

6. Staying out of the game on account of dislike of a leader.

7. The biggest difficulty of all—failing to practice the adopted standard of medical ethics in honesty to patients and to one another.

Now is the time for every physician to be honest with himself and with his fellow-practitioners; to keep an open mind that is receptive to information and argument; and to speak forth on behalf of a high standard of medical practice.

The columns of the New York State Journal of Medicine will be open for all arguments; in fact the editors fear they will not receive word of the arguments that are put forth in opposition to those of the leaders. The editors promise recognition and an honest deal to all comers. The only thing that will be excluded is abuse—unless it can be put in the department of Prunes where it properly belongs, for abuse is always funny to those whom it does not hit.

The next quarter year will be one of tremendous opportunity for establishing a new standard of medical practice in New York State; and the physicians will meet it conscientiously and honestly.—*New York Journal Medicine*.

Personal and News Items.

Dr. and Mrs. A. W. Strauss of Little Rock have returned from New Orleans.

Dr. Charles A. Archer of DeQueen recently visited in Little Rock.

Dr. G. A. Warren of Black Rock made a business trip to Little Rock this month.

Dr. L. M. Lile of Hope has moved to Little Rock. Dr. Lile's office is in the Boyle Building.

The Forty-ninth Annual Session of the Arkansas Medical Society will meet at Fayetteville May 20, 21, 22.

Selling medical service at \$1.50 a month to win bread and milk away from some other doctor's babies is poor business. It cheapens the doctor and is a sign of weakness.

Dr. W. S. Leathers, Secretary Mississippi State Board and ex-president of the Southern Medical Association, was elected a member of the National Board of Medical Examiners.

Dr. C. N. Pate announces the removal of his office from Suite 200 to Suite 417, Thompson Building, Hot Springs National Park. Practice limited to eye, ear, nose and throat.

Dr. C. J. Mareh of Fordyce, Medical Director of The Home Life Insurance Company, Fordyce and Little Rock, has transferred his membership from the Dallas County Medical Society to Pulaski County.

All those interested are cordially invited to be present at the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, March 3, 4, and 5, 1924, Congress Hotel, Chicago.

The Cooper Clinic announces the removal of its offices and laboratories from the First National Bank Building to the Cooper Clinic Building, Little Rock Avenue and Thirteenth Street, Fort Smith.

Drs. W. F. Smith, M. D. Ogden, Little Rock; A. E. Chace, Texarkana; St. Cloud Cooper, Fort Smith; and J. S. Jenkins, Pine Bluff, attended the recent Section Meeting of the Clinical Congress of American College of Surgeons at Jackson, Miss.

Unless means are found for the establishment of small but well-equipped hospitals in some accessible point in every county and unless these hospitals are accessible to all the qualified and reputable physicians living in the county, there will be no improvement in rural practice.—Dr. F. D. Smith (Jour.-Lancet.)

Proposed changes in the Constitution and By-Laws of the Arkansas Medical Society to be voted on at the Fayetteville meeting.

An amendment to Article V, page 3, amending the Constitution by striking out the words following "ex-officio" and substituting therefor the words, "president, secretary and ex-presidents of this society; provided, however, that the ex-presidents shall not have the power of voting." That will make this change, that the ex-presidents of the society will have

the privilege of membership in the House of Delegates, with the exception of voting.

Chapter 1—Membership. Section 4. That a physician who has been a continuous member for a term of fifteen years, who is not less than sixty-five years of age, who is an honorary member of his county society, may have his name carried on the roster of the State society and received its publications as an honorary member and be exempt from the payment of dues.

PRINCIPLES OF MEDICAL ETHICS

CHAPTER II

The Duties of Physicians to Each Other and to the Profession at Large.

Article 1. Duties to the Profession; Uphold Honor of Profession.

Section 1. The obligation assumed on entering the profession requires the physician to comport himself as a gentleman and demands that he use every honorable means to uphold the dignity and honor of his vocation, to exalt its standards and to extend its sphere of usefulness. A physician should not base his practice on an exclusive dogma or sectarian system, for "sects are implacable despots; to accept their thralldom is to take away all liberty from one's action and thought." (Nicon, father of Galen.)

MEDICAL SOCIETIES.

Section 2. In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.

DEPORTMENT.

Section 3. A physician should be "an upright man, instructed in the art of healing." Consequently, he must keep himself pure in character and conform to a high standard of morals, and must be diligent and conscientious in his studies. "He should also be modest, sober, patient, prompt to do his whole duty without anxiety; pious without going so far as superstition, conducting himself with pro-

priety in his profession and in all the actions of his life." (Hippocrates.)

ADVERTISING.

Section 4. Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical institutions from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for young physicians, and especially with his brother physicians, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

MID-WINTER SESSION COUNCIL ARKANSAS MEDICAL SOCIETY

The Council Arkansas Medical Society convened at luncheon at the Marion Hotel, Tuesday, January 15, 1924. Present: Cothern, Jones, Isom, Gann, Henderson, Kirby, President Wootton, Secretary Bathurst, and the following visitors: J. W. Walker, Secretary State Medical Board; Earle Hunt, J. T. Jelks, Geo. S. Brown, J. S. Westerfield, J. M. Proctor.

Called to order 12:15 p. m. President Wootton in the chair. The feasibility of paying the railroad expenses of invited guests to annual meeting was discussed, and on motion of Dr. Cothern, seconded by Dr. Kirby, the Secretary was empowered and requested to suggest to such guests that their railroad fare would be paid.

The chair asked for suggestions as to features for program for next annual meeting and it was agreed that some one or two from the larger Universities or Hospitals should be invited to give "dry clinics." One general medicine, one on x-ray, one on surgery, and one on medicine. It was decided that the first morning be devoted to meeting of House of Delegates. Afternoon to be general session; Addresses of Welcome; President's Address; Addresses on Medicine and Surgery. Evening, President's reception, dance, etc., at the Armory. Second Morning, Memorial Session, Scientific Papers. Afternoon, Scientific Session. Evening, Public Health Meeting. Third Day, Scientific Program in morning and General Session in afternoon.

On motion of Dr. Cothern, seconded by Dr. Isom, the Secretary was authorized to pay the incidental expenses of meeting of the Council this day.

The chair stated that the object of the meeting was to consider the complaint preferred by the Pulaski County Medical Society in regard to irregular practitioners, it being considered imperative that the State Society take some action in regard to the various men from other States who have fictitious licenses. Suggestions were called for as to the best method of procedure for the State society under existing circumstances, bearing in mind that the less turmoil created the better we shall progress. He thought we should begin gradually in the endeavor to banish certain men who are now established in the State. That is really a problem for the local community; but he thought if we could set in motion agencies that will prevent such a condition in the future we shall have taken a great step forward.

Dr. Bathurst: It seems we have stood the abuse of irregular practitioners licensed by the Eclectic Examining Board until patience ceases to be a virtue, and we are called upon to take some definite steps to prevent Arkansas becoming a dumping ground for students graduating from these discredited medical colleges. The Eclectics say they are willing

to co-operate with us to secure a composite medical board, and will appoint a committee from their examining board to meet a committee from this Council to formulate a medical practice act which will be in the interest of harmony, efficiency and protection of the public. They will be satisfied with two members on the board and if the homeopaths agree to one member and allow us four, that will give us a majority of the membership of the new board. They want to improve their standing and will no longer recognize the Kansas City School and will require the same grading as demanded of our candidates for license. They are just as eager as we are for higher ideals. They feel that they have made a great many mistakes and realize that probably some members of their examining board have not scrutinized carefully and conscientiously the credentials submitted and may have allowed some applicants to pass that should not have passed. They want to keep on improving and they are just as much embarrassed by the newspaper discussion as we are. They are very desirous of taking some action that will throw more light on the subject and say if they find an unworthy practitioner they will vote to revoke his license. You will have to decide, however, as to just what is the best procedure in the premises.

On motion of Dr. Cothorn, seconded by Dr. Gann, the chair was requested to appoint a committee to examine the records of our State Medical Board, checking over the credentials of applicants passed by them since their organization and report to the May meeting any irregularities discovered in the issuance of licenses.

Dr. Walker (Fayetteville): I think the records of the Board of Medical Examiners, Arkansas Medical Society, are O. K.; but it might be just as well to check over and verify the correctness of them. I do not know how much work would be involved to trace the graduation and the schools from which applicants came to us. We have not the grades and complete record of premedical education before 1909; but we are perfectly willing to show them and have the check complete from the beginning. Before the law of 1909, which required that all licentiates should qualify before the State Board, we have not a very complete record; but since that time the records are in the files, and everything is all right, I think.

Dr. Brown: I believe we should start the investigation at once, so as to get it before the people without delay. I am like Dr. Walker, I am satisfied in my mind that you will find the records of the regular board all right. There may have been some mistakes, as every one cannot be infallible; but I think we should publish it to the world in order to preserve our good standing in the community.

After a thorough discussion of the proposed personnel of the new board it was agreed that with four well qualified, ethical regulars composing a majority, two eclectics and one homeopath, the best interests of the profession and the public would be safeguarded, and it was believed that all should center their energies to the drafting and passage of such a law at next session of the Legislature.

Dr. Wootton told of how the drumming evil at Hot Springs was dealt with in a tactful, diplomatic way and forever banished; and hoped that the very best judgment would be exercised in dealing with the present situation, and believed the trouble could be relieved without resort to harshness. Thought good results might be accomplished by co-operation, energy and appeal to the nobler impulses of those whom we believe to be not quite right.

This view was concurred in by the members present after some further discussion. It was thought that the one-board law would solve the problems presented. Zeal and indignation if not curbed, might cause the regulars to go too far and aggravate the situation beyond control and render matters worse than they are at present.

On motion duly seconded, the Secretary and chairman of the Legislative Committee were authorized and empowered to arrange for services of attorney H. T. Harrison for assistance in preparing the proposed measure for presentation and such other assistance as may by them be deemed necessary or expedient.

At 2:00 p. m. the Council assembled in Room 212, Marion Hotel. In addition to the Council there were present by invitation, Drs. W. R. Brooksher, Jr., Fort Smith, Morgan Smith, S. F. Hoge, D. A. Rhinehart, C. W. Garrison, Robt. Caldwell, W. F. Smith, Little Rock, and representatives of the Eclectic State Medical Society and members of their medical examining board.

Dr. Rhinehart was first speaker, who brought out certain facts in regard to an expose through the daily press in regard to an alleged medical school in Kansas City, whereby a student, or rather a reporter, secured credentials of high school units and a diploma to practice medicine without a day's attendance in any class.

Dr. Rhinehart went on to say that data involving three men were submitted to the eclectic board, and they had promised a thorough investigation; but so far as he knew no action had been taken. He deemed it a menace to public safety for a medical board to keep on licensing graduates from a school not recognized as ethical in its own or next adjoining States. For this reason the Pulaski County Society appointed a committee to present the matter to the council of the State Society for such action as might be deemed expedient. He feared that if steps were not taken to rectify the situation and endeavor to clean house that Arkansas would lose its reciprocity with a great many States, perhaps all, and be discredited by the National Board.

Dr. Morgan Smith was next heard. He took up the problem with vigor and stated that ten days ago the matter was up for consideration in a meeting of the Pulaski County Society for final action. It was at his suggestion that the whole subject was referred to the Council of the Arkansas Medical Society. He deemed it important that the Council should be armed with all the information which had been secured through the effort of Dr. Rhinehart, President of the Society and his worthy associates. He said it was not a local matter; but was of State-wide importance and affected our national organization as well. He deemed it of grave importance that the Arkansas Medical Society through its Council take steps to maintain our present standing. He believed the continued impairment of our reputation would lead to withdrawal of recognition by the National Examining Board, unless we could show that some definite efforts are being made to clean up this unfortunate condition. He referred to the Medical Practice Act of 1903 and its modification in 1909, and said that the Arkansas Medical Society had always been in the front rank in safeguarding the health of the public, enacting better sanitation regulations and could not afford to shirk an important duty, however disagreeable it might

be. He was also apprehensive that if no effort were made to remedy the present deplorable situation it might adversely affect the standing of the Medical School at Little Rock, which has enjoyed a grade "A" standing for several years past. With its multiplicity of examining boards and the suspicion that one of the boards has licensed some physicians not qualified to practice medicine, as respectable physicians, as members of a great organization, we must take some action through our own Council.

He said he understood it had been intimated by prominent members of the National Board that unless Arkansas cleans up it will be rather difficult for us to maintain our reciprocity relations with other States. If that board should take adverse action toward the State Medical Board, it would put us in a most humiliating position. Unless we show some desire to remedy the situation, then we cannot defend our position half so well. He believed the Governor would co-operate in any effort the State Society would undertake to remedy existing evils, and that the public press would stand solidly behind the movement. He felt that the State Board, the Medical School, and the medical profession of Arkansas at large were so intimately correlated that any suspicion as to irregularities in State Board examinations of the Arkansas Medical Society would reflect on all. This matter was not of such light, local nature that it was unworthy of the cognizance of our Council. We cannot have two standards. We must fight to maintain the grade of medical education for which we have striven so long. It was true that the Council had not the judicial power of examining and revoking licenses; but it could be furnished information for presentation to the proper legal authorities as a basis for prosecution if deemed expedient, and the facts warrant such action. He would not presume to suggest what action the Council should take; but he believed that that body should have all the information and data assembled that it might use them to the very best advantage, and they might perhaps bring alleged irregularities to the attention of the State Board of Eclectic Examiners, through their proper official organization. It had been suggested that we might get together on a bill for a single board. If we can do that we shall be well repaid for coming together at this time.

Said Dr. Smith: "If the Council does not wish to handle the matter, we will undertake the task ourselves. I think we have a problem of State-wide importance and one that should interest and engage the very best medical talent in the State. It is going to affect us not only in Arkansas; but in other States; but so far as that is concerned, I think the State Medical Society should always be ready and willing to come to the aid, and fight the battles of any county society. The county society is the child of the big organization. If one county needs help, or defense; then the Arkansas Medical Society, through its Council, should come to its relief. It is not that we wish to shift the responsibility of taking action; but wish to make a strong representation of the whole matter in order that definite action may be taken, that we might not lose our standing and influence with the public. The State of Connecticut promptly took action to "clean house," but so far as I am advised, Arkansas has taken no action in the premises."

Dr. Smith, in closing, strongly refuted the assumption that the Pulaski County Society was endeavoring to "shift the buck" and expressed his appreciation of the privilege of coming before the Council to present the matter for consideration.

Dr. Wootton: My opinion is that the facts presented justify the Council in taking some action; but I doubt the propriety of assuming that the Council should endeavor to secure indictments against these offenders. Probably the best procedure would be that possessing such evidence we may thrash it out through the proper officials and the local authorities and let them take such action as circumstances warrant. I do not believe we wish to assume the role of prosecutor. The Arkansas Medical Society does not wish to persecute any man who has obtained a medical license; but I think we can get action by approaching the prosecuting attorneys in the proper way and by making strong representations to the local authorities.

Dr. Hoge: I feel it my duty to call attention to the agitation in our State in regard to the recognition of a Kansas City Medical College, deemed to be unworthy of confidence, and to the apprehension that all this propaganda may possibly affect us through the possible action of some other States, particularly with regard to reciprocity with

Arkansas. We now enjoy this privilege with some thirty odd States of the Union.

Two months ago the Kansas City Journal-Post sent a special representative from Kansas City to look into the Arkansas end of the medical diploma mill. This representative was in Little Rock for some three days in the hope that some official action would be taken here to clean up the mill. After having talked to a number of officials here the reporter left the city in disgust with the statement that "Arkansas will never do a thing about it." That covers the message to his paper and that was essentially the message that his paper published.

That was two months or more ago, and to date no action has been taken. The case for action, however, is now more complete and fully substantiated and the case against Arkansas is essentially this:

1. That Arkansas through its eclectic board of examiners has licensed a number of doctors who did not attend a reputable eclectic medical college for a full four years period. Attention here is called to the cases submitted by the Pulaski County Medical Society, showing that in three specific instances the board has licensed men who did not attend a medical college for a full four-year period.

2. That Arkansas still continues on its rolls the names of doctors whose licenses have been revoked by the Connecticut Board of Eclectic Board Examiners on charges of fraud. A list of the doctors in question has been in the hands of the eclectic board since the latter part of December and to date no action has been taken. The names of Dr. John Richard Brinkley, James Christian and others are cited.

3. That the Arkansas Board of Eclectic Examiners has been lax in investigating the credentials offered for taking examinations. It is stated that the board has no evidence, other than a candidate's sayso, showing attendance and graduation from high school, and medical college.

4. That Arkansas through its Eclectic Board of Examiners has licensed candidates who attended other than eclectic medical colleges. Attention is called to the fact that many of the candidates licensed attended such schools as the St. Louis College of Physicians and Surgeons for one, two and three years

period, which school is an unrecognized allopathic school, and later claimed advanced standing at and received it at the Kansas City College of Medicine and Surgery, a nominally eclectic medical school, recognized by but two States, Connecticut and Arkansas; not recognized by the National Eclectic Association.

These charges are of common public knowledge. Newspapers from one end of the country to the other have carried them, and will continue to carry them. In addition attention has been called to the disreputable medical colleges and, of course, wherever graduates of these schools practice an investigation is being made as to how the doctor got into the State. This investigation usually conducted by the State Board of Examiners will reveal information something like this: The State in question usually does not admit to examination graduates of the Kansas City College of Medicine and Surgery, but has reciprocity relations with Arkansas.

It is perfectly self-evident that a State which does not recognize the Kansas City College of Medicine and Surgery directly will also not recognize it indirectly. Obviously, it will immediately shut off the supply of the bogus doctors. How? By ending the reciprocity relations with Arkansas.

Kansas has already started the movement. It is stated in the public press that the reciprocity cancellation is a permanent thing. Other States will do likewise. Oklahoma is considering such a move now. Other States that have reciprocity agreements are checking up on the number of candidates coming from Arkansas. Their action will be similar. It is hinted that the matter has been officially brought to the attention of the Federation of State Boards.

Arkansas has refused to act against doctors who are known to be fraudulent. Other States will.

Dr. Wootton: There will be action by the State Society. It will be thorough and sweeping in every detail. One of the objects of this meeting was to discuss the feasibility of one medical board. Tentative progress has been made. Committees will be appointed to take up not only the matter of a single board; but for the drafting of the law itself. I believe something definite and satisfactory may be accomplished if we do not take hasty and inconsiderate steps in the matter.

Dr. J. L. Jones: This Society is not against anything that will produce harmony in the ranks. We have in mind the establishment of a State board with a proportion of 4-2-1 and by this means we hope to remedy our deficiencies. This Council will stand behind Pulaski County or any other county. We do not want the impression to go out that this Council is not willing to take a stand for the right in every instance.

Dr. W. F. Smith: For the last several years I have been a member of our Legislative Committee trying to pass remedial legislation. We have talked it over and made the attempt at every term of the Legislature to carry our bill through. We have been opposed by the eclectics, chiropractics, optometrists and others who were interested in blocking our measure. If this is a matter which does not concern the State Medical Society, I don't know what matter could be conceived that would concern it. I know that anything that concerns the State Society would certainly concern this Council. It is concerned as any member of a person's family is concerned with the head of the family. There are a few points at issue that it would be very foolish to lose sight of. According to my way of looking at the matter we should center our energies on getting an act of Legislature here in Arkansas like the medical practice act of such States as Georgia, New York and Illinois. Those States are so intrenched that there is no question as to their examining board. They do not have to apologize when they go abroad as we Arkansas doctors have to do! In order to get our house in order for the next Legislature, let us get together with our friends in the other schools and see if we cannot agree on a composite board, and decide on a law that we can all get behind and then stick together till we secure its passage. Let us not worry about some newspaper expose that is about to go out or has already been sent out. I think it is more important to try to plan what we want to do and put ourselves on a footing where it will be impossible to lose our good standing in the medical world. I think we should get together and see what we can do for ourselves. The past is gone, let it rest in peace. I think the Council is doing some important constructive work and that we shall see some very satisfactory results in the way of securing a composite single examining

board. I personally think that 4-2-1 is the proper proportion. I think we should be guided by the exigencies and expediency as we see it. I am sick and tired of seeing candidates from Kansas City come over here and get licenses to practice here. Let's do all we can to put Arkansas on the map. There's work to do and we need all the help available. Let's put over a law that will forever bar these incompetents coming in here by the train load.

Dr. C. W. Garrison: The present situation affects my office. The State Board of Health is just as much interested as any member of the profession can be, in a high class personnel for our medical men. I am deeply interested in the outcome of this meeting and I trust that the Council will proceed along the line suggested. I think that any harsh procedure just at this time might thwart our purposes. I do not believe we shall gain anything by any compulsory tactics that we might attempt; but I think we should deal with the question of legal practice of medicine and get it in such shape that our plan will be endorsed by our Governor and be presented to our next Legislature in a way that will command their attention and favorable consideration. In this way we hope to be able to get a bill passed that will be a credit to Arkansas and to those zealous physicians who have so earnestly and so faithfully labored to bring about this reform.

Dr. C. E. Laws, Secretary Eclectic Medical Board, Fort Smith: I am glad to be here. In response to the suggestion that our board has licensed incompetent men, I would say that maybe our Council has been a little lax in some measure in the past. The eclectics, as well as the regulars, may be amenable to the insinuation of extreme leniency in examinations. Heretofore I have been opposed to the one board law; but as I now see it, I am willing to co-operate in the effort to establish a single composite board. We have never before had the privilege of attending any of your Council meetings. We have run the Eclectic Board the best we knew how; but we may have taken action that might have been a little questionable. It should be taken into consideration that we have a little lower standard as to premedical requirements; but we have had the co-operation of the communities where our licentiates located. We have never had one that went out that was not

successful in establishing a satisfactory practice. Dr. Garrison has one field man that we gave him at our last meeting.

The Eclectic Board are the first ones to suffer from this unfavorable newspaper propaganda; and while I am secretary of the board, if you know anything about the men we have licensed which should be investigated, give us the data. We have been doing a great deal in the way of looking up records and we have got some licenses to revoke. I have found out what I know from observation and experience and I am willing to declare how I stand on those things. I am at all times ready, willing and anxious to do anything for the medical profession of our State and to raise the standard of qualifications and efficiency. We have a hard task before us. I have talked with our other members and we are not against anything that is reasonable, and we are all for Arkansas. We will hew to the line and let the chips fall all around us. The man who does not make any mistakes does not exist; he is dead. We stand ready to correct and offset anything that has been put over on us. (Applause.)

Dr. Morgan Smith: "The situation in Arkansas, it seems to me, demands immediate consideration and action by this Council as well as by the Eclectic Examining Board. The secretary of the board, Dr. Laws, and the president of the Arkansas Eclectic Association, Dr. Spain, have here publicly espoused the cause of higher medical standards for licensure, and expressly offer to co-operate with this body in the attainment of desirable standards. I accept at full value their fine spirit of proffered co-operation and shall strike hands with Dr. Laws in bringing about the enactment of a bill for a composite board which will make it impossible in the future to have a repetition of the scandal with which the State is now belabored. But the Eclectic Board should promptly revoke the licenses of those who have been guilty of fraud. The Pulaski County Medical Society insists that the evidence transmitted to Dr. Laws most certainly justifies the revocation of the license of at least two persons now practicing in this State."

"Now that the Eclectic Board has espoused the cause of high medical standards, I think we can furnish data upon which their board can locate just the right persons that will justify summary action. It seems to me that the

onus is on the Eclectic Board and I believe we have given them the evidence sufficient to revoke the license of two doctors passed by them."

Dr. Laws: We are going to remove one or two.

Dr. Spain: I assure you that there is no one more anxious to clean up than we are. We had an executive meeting this morning and we have decided to put this matter under investigation. We are always ready to do the right thing. I was a member of the examining board, but was retired at last meeting. I assure you that I know the members of the board, and I am sure that anything offensive will be investigated and taken care of. (Applause.)

Dr. L. L. Marshall: I have been a physician for a good many years and I know that every two years we have a free-for-all scramble over medical legislation to revise our practice act. One side or the other would draft bills for passage that produced very energetic fighting. I know very little about executive management. I have never served on any board; but personally I have never been opposed to one board. Unfortunately, I have been placed as chairman with instructions to fight any legislation that would remove our board or make any change in our status. Now, then, in response to the invitation to come before you, I want to say we appreciate the courtesy and wish to assure you that we have been gathering data for our next regular meeting. You understand that we want to be safe. We do not want to revoke a man's license and do him an injustice. It is a serious proposition.

Now as to the fighting I have done against the single board in the past, we all make mistakes, and I feel that I was wrong. Perhaps some of our men have erred; perhaps some are licensed who should not be practising. I think the same condition exists in your ranks—fellows who are fighting and say "Give them hell!" They are earnest in their representations, but use poor judgment. So far as investigation is concerned, I am afraid you have a great many men licensed who are habitual drunkards, drug addicts, and sexual and moral perverts. These should be weeded out; these are the ones we want to get rid of, I am sure. This morning in our Council it was decided that we wage relentless warfare against all irregularities. We want to get

together and work for a composite board with representation for the Eclectic Board.

We have heard a great deal lately about the Kansas City College of Medicine and Surgery. I think it came into existence in 1915, I do not know whether it is a good school or not; but that school has been discredited, as I understand it, by the Eclectic Board. We are doing our best to get right and will assist in getting a good, practical medical practice law. We will get together when it is ready we will go together and ask the Governor to include it in the extra session he contemplates calling. We will tell him that everybody is for the bill and when it comes up for passage you will hear from us. There is no need of publicity; just get everything ready and all pull together.

Dr. Wootton: We are not going to do any fighting with each other. What we want to do is to co-operate from this time on. We are going to set our machinery in motion. We are going to "clean house" ourselves. From now on we are going to get together for a better standing.

Dr. Turrentine: I am a graduate of the Kansas City College of Medicine and Surgery and a member of the Examining Board of our Society. At our last meeting we raised the standard and cut out the school from which I graduated. I saw where it was necessary for the benefit of the medical profession of Arkansas. I think as much of the State of Arkansas as any one, for I was born and reared here; went to school and college here. Being a member I used my ability to raise the standard to where the practitioners of Arkansas would be worthy of a good reputation for skill and usefulness.

Dr. Norris (Tuckerman): I am glad to have had a part in this meeting. This plan of co-operation I heartily believe in. I think the only way we are to remedy this trouble is by legislation. What we want is a new board—a composite board—and a medical practice act in connection with it; that is the only way we can do it. (Applause.)

The Chair: There is only one profession in the world that is regarded with more distrust and suspicion than ours. We will now hear from a lawyer we have with us today.

Attorney H. T. Harrison (Little Rock): I very much appreciate the privilege of hearing this discussion. It has given me about the

very best impression that could be given. I am cognizant of the fact that you gentlemen, representing as you do the leaders in your profession, are very much concerned and deeply interested in seeing the standards of medical education elevated.

It was my experience to be associated with your legislative committee during the last session of our General Assembly in an effort to promote a satisfactory medical practice law. It early became apparent that there were some obstacles of a political nature, and they became very practical as negotiations advanced. I was chiefly impressed by the fact that "suspicion's dark, corroding stain" existed in the camps represented by the different medical societies. Suspicion of the motives and good faith of the other camp. Dr. Laws, Dr. Marshall and others, representing both societies, have shown that the only hope for constructive legislation next term is by submerging differences and uniting in the spirit of good faith; in the spirit of co-operation. They have stated the solution of the problem. As a lawyer, I do feel a great deal of interest in the standards of medical education. As a citizen of Arkansas, I am interested to know that when a representative of the medical profession in the State of Arkansas, presents credentials permitting him to practise medicine in this State such credentials speak for a high standard of excellence and learning in that science. It ought to be so.

I have found whether it be in the legal profession or in the medical profession, or in any other art or science, those persons who have been most diligent in their demand for high standards have always been the leaders in their particular field. We would like to say always, that the doctors practising in Arkansas, the men who have received license through the examining boards of this State, hold credentials which carry on their face proof of learning and evidence of excellence.

I think by the merging of the regular and eclectic boards, getting together and disarming all suspicion, as suggested in the discussion, there should be the utmost harmony and co-operation in the ranks. A feature that might strike with force the minds of those who are deliberating on the bill from the eclectic point of view, is the matter of protecting their present licentiates. It is realized that the majority of the proposed board will be the regulars. But it should not be pre-

sumed that majority will be used unfairly to affect the standing of men who are already licensed. I think that difficulties of that sort can very practically and very easily be disposed of. I believe that you can get together on a bill that will take its place in point of excellence with the best States now in the union. This is just what you want, and if there is anything that I can do in the way of furthering that end, I shall be glad to render any service or assistance in my power.

Dr. Marshall (Little Rock): We have done our part. Our President has appointed three men as a committee to meet with your committee to get the best law that they can formulate. I am sure that the main point is all that we ask is for protection in the medical practice act. We are not asking anything unreasonable. We want to work with and not against you. I am sure that the men our President has appointed are going after this and take it up with vigor and submit the facts in regard to certain things. We want to be careful. This committee is going to furnish evidence of an illuminating character of irregularities in the ranks of the regulars, and we want to get together as a grievance committee and thrash it out for submission to the boards.

The chair: We will give that information to your board through a committee that will be appointed this afternoon. We shall certainly see that justice is done.

The open meeting, on motion, adjourned at 3:10 p. m.

The Council re-assembled in executive session at 3:15 p. m., Dr. Wootton presiding. Dr. Bathurst, Secretary of the meeting.

Dr. Cothorn offered the following resolution.

Resolved, That we heartily commend and endorse the movement set in motion by the Pulaski County Medical Society in its effort to run down and expose quackery in the ranks; and be it further

Resolved, That the Council is thoroughly in accord with the idea of purging the state of irregularly licensed physicians, and to that end we have appointed a committee from our society and requested that one be appointed by the Eclectic Medical Society to act as a grievance committee and also to cooperate in formulating a medical practice act to be submitted for passage at the next session of our General Assembly. And be it further

Resolved, That a local committee of three be appointed to check and verify the records of the State Medical Board from its beginning up to the present time, and report its finding to the next meeting of the Council.

The chair appointed on the committee to check and verify the records of the State Medical Board, Drs. Gregg, Wood and Hathcock of Fayetteville.

On motion, duly seconded, a resolution of thanks and appreciation was tendered the Pulaski County Medical Society and its officers for their zeal and energy in their effort to weed out quacks from the profession; and the Secretary was instructed to express the appreciation of the Council for the data submitted to them as a result of the diligent and painstaking investigation set in motion by the members of the Pulaski County Medical Society.

Dr. Cothorn suggested that the Secretary write to the County Secretaries to have their Board of Censors make a check of its members to see if all are registered at the office of the county clerk in the county in which they are practising; and the chairman gave instructions accordingly.

Dr. Kirby offered the following resolution, which was unanimously agreed to:

Resolved, That there should be a sound, well qualified, composite examining board so that those who wish to practice medicine in Arkansas may meet the standards set up by the Association of American Medical Colleges, and be it further

Resolved, that a committee be appointed by the President to formulate a bill providing for such a medical board to be presented for passage at the next session of our General Assembly.

The chair appointed Drs. Robt. Caldwell, Chairman; Morgan Smith, J. P. Runyan, W. F. Smith and C. W. Garrison on the grievance committee; also to meet with the members of the Eclectic and Homopathic Boards and formulate and have introduced a new medical practice act in the next Legislature.

No further business coming up for action, the Council, on motion, adjourned at 3:25 p.m.

W. T. WOOTTON, Chairman,

WM. R. BATHURST, Sect'y.

County Societies.

SEVIER COUNTY

At a recent meeting of the Sevier County Medical Society the following officers were elected: President, R. L. Hopkins; Vice-President, C. E. Kitchens; Secretary, C. A. Archer; Delegate, J. C. Graves; Alternate, A. J. Clingan.

POLK COUNTY

(Reported by F. C. Mullins, Sec.)

The following officers of the Polk County Medical Society were elected for the year 1924: President, B. E. Dunman, Mena; Vice-president, P. R. Watkins, Mena; Secretary, F. C. Mullins, Grannis; Delegate, C. F. Johnson, Hatfield; Alternate, B. H. Hawkins, Mena.

SEARCY COUNTY

(Reported by Sam G. Daniel, Sec.)

At a recent meeting of the Searcy County Medical Society the following officers were elected:

President, A. S. Baker, Snow Ball; Vice-President, J. A. Henley, Marshall; Secretary-Treasurer, Sam G. Daniel, Marshall; Delegate to the State Society, Sam G. Daniel.

CONWAY COUNTY

(Reported by W. H. Bruce, Sec.)

The Conway County Medical Society met January 3, at Morrilton. The following officers were elected: President, H. E. Mobley; Vice-President, B. C. Logan; Secretary-Treasurer, W. H. Bruce; Delegate to State Convention, J. M. Matthews.

CHICOT COUNTY

(Reported by B. C. Clark, Sec.)

The Chicot County Medical Society met January 24, at Lake Village. The following officers were elected for the year 1924: J. S. Wilson, Lake Village, president; E. Baker, Dermott, vice-president; B. C. Clark, Lake Village, secretary; S. W. Douglas, Eudora, delegate to State Society, and E. E. Barlow, Dermott, alternate.

PHILLIPS COUNTY

(Reported by J. W. Nichols, Sec.)

The Phillips County Medical Society met in the Chamber of Commerce Rooms, January 8th. After dispensing with the usual routine business the following officers were elected for the year 1924: H. H. Rightor, Helena, president; J. W. Bean, Marvell, vice-president; J. W. Nichols, Helena, secretary. H. H. Rightor was elected delegate to the Arkansas Medical Society and W. R. Orr, alternate.

The local society will be more active this year and some interesting meetings are planned.

CRAWFORD COUNTY

(Reported by S. C. Grant, Sec.)

The Crawford County Medical Society met December 28, 1923. Minutes of the previous meeting were read and approved. In the absence of President Kirkland, Dr. J. A. Wigley presided.

Present: Wigley, Bourland, Parchman, Dibrell, Blakemore and Grant.

A very interesting as well as instructive paper on the "Diseases of Children in the Home and Hospital" was read by Dr. Matt S. Dibrell. General discussion followed.

Dr. Blakemore will present a paper at the next meeting.

SEBASTIAN COUNTY

(Reported by E. J. Brown, Sec.)

The annual banquet of the Sebastian County Medical Society and installation of officers was held at the Goldman Hotel, January 8, 1924, with Dr. Jas. A. Foltz presiding as toastmaster.

Talks were made by Drs. W. R. Brooksher, Jr., J. D. Southard, Geo. F. Hynes, W. R. Brooksher, and St. Cloud Cooper.

Officers elected for the current year were: President, W. R. Brooksher, Jr.; Vice-President, M. E. Foster; Secretary, E. J. Brown; Treasurer, H. H. Smith; Member of Board Censors, W. R. Brooksher.

CRAWFORD COUNTY

(Reported by S. C. Grant, Pres.)

The Crawford County Medical Society met in Van Buren, January 24, 1924, and elected officers for the ensuing year as follows: President, S. C. Grant, Mulberry; Vice-President,

M. S. Dibrell, Van Buren; Secretary, J. A. Wigley, Mulberry; Treasurer, O. M. Bourland, Van Buren; Delegate to the State Society, W. R. Reves, Alma; Alternate, S. C. Grant.

The essayist being absent, Dr. M. S. Dibrell reported a very interesting case of acute leukemia that ran a rapid and fatal course.

The delegates were instructed to cast their vote and use their influence for Dr. Thos. Douglass of Ozark for President of the Arkansas Medical Society at the coming meeting at Fayetteville.

ARKANSAS COUNTY

(Reported by Robert H. Whitehead, Sec.)

At the meeting of the Arkansas County Medical Society at Stuttgart, January 8, 1924, the following officers were elected:

President, C. W. Rasco, DeWitt; Vice-President, E. B. Swindler, Stuttgart; Secretary, R. H. Whitehead, Gillett (re-elected); Delegate to State meeting, C. A. Lumsden; Alternate, Arthur Fowler.

An oyster supper was served, after which an unusual, but very interesting, program was rendered as follows:

Mr. R. E. Holt, local attorney, read a paper on "Needed Divorce Legislation."

Dr. Woodard, dentist, "The Progress of Dentistry."

Mr. Gallicott, druggist, "How the Druggist can help the Physician."

Dr. Arthur Fowler of Humphrey, "Typhoid Fever."

This society is thirty-four years old and is one of the most active organizations in the State.

SALINE COUNTY

(Reported by J. M. Phillips, Sec.)

The Saline County Medical Society met in regular session at 2:00 p. m., January 7, 1924, in Judge Dyer's office. Minutes of the last meeting were read and adopted.

After the general routine of business was disposed of, the following officers were elected for this year: President, W. W. Ward, Alexander; Vice-President, J. D. Wright, Mabelvale, R. F. D. No. 1; Treasurer, E. A. Buckley, Bauxite; Secretary, J. M. Phillips, Benton; Censor, C. J. Steed, Bauxite; Delegate to State Medical Society, Dewell Gann, Sr.; Alternate, Warren Kelley, Benton.

A general discussion of various topics was entered into by all present, from which some very interesting points were brought out.

The society gave a vote of thanks to Judge Dyer for the use of his office to hold our meetings.

Meeting adjourned to meet in regular order the first Monday in February.

UNION COUNTY

(Reported by D. E. White, Sec.)

The first meeting for the year of the Union County Medical Society was called to order by the newly installed president, Dr. S. J. McGraw, at 8:00 p. m., January 8, 1924, at the office of Dr. Mitchell.

Present: Murphy, Moore, White, Mitchell, McGraw, J. K. Sheppard and J. M. Sheppard. The minutes of the previous meeting were read and adopted.

The scientific program consisted of a paper by Dr. White, entitled, "The Necessity and a Method of Removing Tonsils in toto." The paper was discussed freely by practically every member present and elicited amusing incidents or experiences in regard to the operation of removing tonsils. One stated, in attempting to remove a tonsil on a negro patient, the patient swallowed what was removed with part of the wire snare, and he experienced difficulty in obtaining them. He then placed them on the tray where they belonged, and had never attempted the operation again and had a snare for sale. Another stated that he called in a physician in consultation regarding some particular condition in a child of whom he had previously removed the tonsils, and the consultant among other things advised that the child have his tonsils removed.

There being no further business, the meeting adjourned.

GARLAND COUNTY

(Reported by Thomas N. Black, Sec.)

At the regular meeting held December 11, 1923, of the Hot Springs-Garland County Medical Society the following officers were elected: O. E. Biggs, President; O. H. King, Vice-President; T. N. Black, Secretary and Treasurer; S. D. Weil, Censor for three years; Proctor, Garratt and Wade, Delegates to the State Society; Fletcher, Browning and Jennings, Alternates.

At the last regular meeting, January 8, 1924, the following resolution was adopted:

Whereas, it is well known that in certain States and perhaps in Arkansas, certain men have obtained registration as physicians through fraud and the use of bogus diplomas; and

Whereas, it behooves us as physicians that our profession be kept free from the stigma of fraud, charlatanism, commercialism and ignorance; therefore, be it

Resolved, that the Hot Springs-Garland County Medical Society in session assembled, request the State Medical Society and the State Board of Medical Examiners to use every effort to discover those who have been registered by means of fraud, and prosecute them to the fullest extent of the law; and be it further

Resolved, that we offer the above bodies our moral and financial support in any measure they may take to correct the above evils.

Finally, we urge upon them and the legislative committee of the State Medical Society not to overlook the value of these disclosures in urging the Legislature of Arkansas to pass a bill placing all medical registration under one board.

S. D. WEIL,

J. H. CHESNUTT,

T. N. BLACK,

Committee.

PULASKI COUNTY

(Reported by R. J. Calcote, Sec.)

The following resolution adopted by the Pulaski County Medical Society at a recent meeting, is self-explanatory. This society was prompted to pass this resolution because we feel that the operation of certain features of the present revenue laws is unjust, and the fact that a revision of the revenue laws, now under consideration by Congress, opens the way to relief. Further information on this matter will be found in an article in the Journal of the American Medical Association, January 26, 1924.

We are sending a copy of this resolution to the Senators and Representatives from this State and requesting Senator Robinson to file a copy with the Committee on Finance of the United States Senate. We are also requesting our representative from this district to file

a copy with the Committee on Ways and Means of the House of Representatives.

(1) *Whereas*, the Harrison Narcotic Act, as passed in 1918, is essentially an occupation tax on the physicians, and the revenue from same is much more than is necessary for the enforcement of the act.

(2) *Whereas*, at present, a physician is not allowed to deduct from his income, expenses incurred in attending medical meetings and post-graduate studies.

(3) *Whereas*, the physician is taxed on his earned income at the same rate that he and taxpayers generally are taxed on incomes from investments; therefore, be it

Resolved, that the Pulaski County Medical Society request our Senators and Representatives in Congress assembled to—(1) Vote for a reduction of the Harrison Narcotic Tax; (2) Give their support to a law that will allow a physician to deduct as expenses, all money expended in post-graduate study, and while attending medical meetings, including transportation and hotel bills; (3) And to exert their utmost efforts to enact a law so that earned incomes will not be taxed as much as incomes from investments.

Book Reviews.

Medical Record—Visiting List or Physician's Diary. Revised. Published by Wm. Wood & Co., Medical Publishers, New York. Price, \$2.00.

In addition to the space allotted for Visiting List with special memoranda (60 patients per week), this little book contains much valuable and interesting information arranged for ready reference, convenient for all physicians.

Building Strong Bodies—By Woods Hutchinson, A. M., M. D. Published by Houghton Mifflin Company, 2 Park Street, Boston, Mass. Price 88 cents.

This book is one of Dr. Woods Hutchinson's Health Series. He says "Growth and health depend on exercise." The book teaches how to grow strong and healthy by out-of-door play.

Physiotherapy Technic—A Manual of Applied Physics. By C. M. Sampson, M. D., formerly of the Physiotherapy Service; Walter Reed U. S. Army General Hospital, Washington, D. C. With 85 illustrations. Published by C. V. Mosby Company, St. Louis. 1923. Price, \$6.50.

This book attempts to show what can be accomplished by physiotherapy. The author

thinks it indispensable part of medical and surgical practice. The technic given are the ones that have met every test of cases in the various clinics in the reconstruction hospitals following the late war.

The Care of the Baby—A manual for mothers and nurses, containing practical directions for the Management of Infancy and Childhood in Health and Disease. By J. P. Crozer Griffith, M. D., Professor of Diseases of Children in the University of Pennsylvania. Seventh edition thoroughly revised. 12mo of 478 pages with 104 illustrations. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth, \$2.50 net.

This is another volume of a popular and well known book on the care of the baby. Dr. Griffith presents the subject plainly, and clearly, making it extremely valuable for mothers and nurses.

A Practical Textbook of Infection, Immunity and Biologic Therapy, with special reference to immunologic technic. By John A. Kolmer, M. D., Dr. P. H., Professor of Pathology and Bacteriology in the Graduate School of Medicine, University of Pennsylvania, with an introduction by Allen J. Smith, M. D., Professor of Pathology in the School of Medicine of the University of Pennsylvania. Third Edition, thoroughly revised and mostly rewritten. Octavo of 1210 pages containing 402 original illustrations, 51 in colors. Philadelphia and London: W. B. Saunders Company, 1923. Cloth, \$12.00 net.

From the author's preface, we wish to state the main purposes of this book, namely:

1. To give to practitioners and students of medicine a connected and concise account of our present knowledge regarding the manner in which the body may become infected, and the method, in turn, by which the organism serves to protect itself against infection, or strives to overcome the infection if it should occur, and also to present a practical application of this knowledge to the diagnosis, prevention, and treatment of disease.

2. To give to physicians engaged in laboratory work and special workers in this field a book to serve as a guide to the various immunologic methods.

3. To outline a laboratory course in experimental infection and immunity for students of medicine and those especially interested in these branches.

**HAVE YOU PAID YOUR DUES FOR 1924?
IF NOT, REMIT TO YOUR COUNTY SECRETARY AT ONCE.**

FORTY-NINTH ANNUAL SESSION
OF THE
Arkansas Medical Society
FAYETTEVILLE MEETING
May 20, 21, 22, 1924

PRELIMINARY PROGRAM

"Medical Organization as Exemplified by the American Medical Association and Its Constituent Societies"—Dr. William Allen Pusey, President of the American Medical Association.

"President's Annual Address"—Dr. Wm. Turnor Wootton, Hot Springs.

"Vaginal Hysterectomy and Its Indication"—Dr. James Kennedy, The Joseph Price Hospital, Philadelphia.

"Colon Physiology"—Dr. Jas. Case, Battle Creek, Michigan.

"Health Work Pays"—Dr. W. A. Evans, Editorial Department, Chicago Tribune, Chicago.

"Descending Testicle, with Case Reports"—Dr. Frank B. Young, Gering, Nebraska.

"The Existence of a Specific Vitamin for Reproduction"—Dr. Barrett Sure, University of Arkansas, Fayetteville.

"The Relation of Chemistry to Medicine"—Dr. Harrison Hale, University of Arkansas, Fayetteville.

"A Year's Experience with High Voltage X-Ray Therapy"—Dr. D. A. Rhinehart, Little Rock.

"Some of the More Common Endocrine Disturbances Associated with Heredo-Syphilis"—Dr. Geo. M. Eckel, Hot Springs.

"Rational Classification of Heart Rhythms"—Dr. W. D. Rose, Little Rock.

"The Indications for Suspension Laryngoscopy"—Dr. R. H. T. Mann, Texarkana.

"The Law of Conditions Is as Positive as Is the Law of Gravitation"—Dr. D. C. Walt, Little Rock.

"Treatment of Diabetes Mellitus"—Dr. A. A. Blair, Fort Smith.

"Results of Surgery: Physiologically, Psychologically and Pathologically. What We May Expect and What We May Promise"—Dr. C. S. Pettus, Little Rock.

"Cholecystotomy vs. Cholecystectomy"—Dr. Dewell Gann, Jr., Little Rock.

"Demonstrations of the Uses of a New Instrument"—Dr. C. H. Cargile, Bentonville.

"My Experience with Insulin"—Dr. Allen A. Gilbert, Fayetteville.

"Uncommon Symptoms of the Urinary Tract"—Dr. W. R. Klingensmith, Fort Smith.

"Obstetrics"—Dr. S. B. Hinkle, Little Rock.

"Morphin and Scopolamin Seminars in Labor"—Dr. S. C. Grant, Mulberry.

"Plea for Greater Research"—Dr. A. L. Best, Newport.

"A Simple and Reliable Test for Albumin in Urine"—Dr. C. J. March, Fordyce.

"Subject to be announced"—Dr. W. H. Mock, Prairie Grove.

"Report of Case"—Dr. H. A. Stroud, Jonesboro.

"The Parkinsonian Syndrome Following Lethargic Encephalitis"—Dr. George B. Fletcher, Hot Springs.

"Pain Due to Ureteral Disturbances—Report of Cases"—Dr. J. W. Butts, Helena.

"Ureteral Obstruction"—Dr. W. R. Brooksher, Fort Smith.

"The Significance of Vertigo"—Dr. E. T. Ponder, Little Rock.

"What the Physician Should Stand for in His Community"—Dr. Thos. Douglass, Ozark.

"When and How to Operate in Diffused and General Peritonitis Following Appendicitis"—Dr. G. G. Altman, Helena.

"Some of the Things That Reduce Operative Mortality, Morbidity and Disability"—Dr. J. P. Runyan, Little Rock.

"Prostatic Calculi"—Dr. J. A. Foltz, Fort Smith.

"Report of Cases—Rare to Me"—Dr. R. C. Dorr, Batesville.

"Report of Case"—Dr. E. E. Barlow, Dermott.

"Some Malignant Bone Neoplasms" (Lantern Slides)—Dr. W. F. Smith, Little Rock.

"The Prevention and Treatment of Surgical Infection"—Dr. A. E. Chace, Texarkana.

"The Influence of Focal Infections on Pulmonary Tuberculosis"—Dr. H. C. Dorsey, Fort Smith.

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Original Articles.

THE THREE COMMON IRREGULARITIES OF THE HEART BEAT.*

Neuton S. Stern, M. D., Memphis.

From the Cardiac Clinic of the Memphis General Hospital, and the Department of Medicine, College of Medicine, University of Tennessee.

Irregularities of the heart rhythm are not at all uncommon. They are found from childhood to old age. Since they are not unusual in the experience of every physician, since the significance of one differs sharply from that of the others, and since the treatment is different, it is important that every physician should understand these conditions. By so doing he will be able to make a more reliable prognosis, and to treat his patient more intelligently.

Normally the beat of the heart is originated in a small mass of specialized tissue that lies in the sulcus between the superior vena cava and the right auricle. This tissue bears the name of sinus node, and the normal rhythm originating here carries the name of sinus rhythm. The sinus node is under the control of the vagus nerve, and any stimulation of the vagus tends to slow the heart. Paralysis of the vagus, as by atropine, releases the node from the habitual vagus restraint, and the heart beats more rapidly.

The lungs are likewise supplied by the vagus and, as is well known, the vagus is an afferent as well as an efferent nerve, carrying stimuli to its nucleus in the medulla, as well as impulses from it. It is not difficult to conceive of afferent impulses running from the lung to the medulla and out again as efferent impulses along with the cardiac vagal fibers.

Such reflexes actually occur, the stimulation varying with the phases of respiration. The heart rate waxes and wanes according to whether the normal resting vagus inhibition is decreased or increased by the breathing. It is found that with inspiration, the vagal tone is decreased and the heart beat accelerates; with expiration, the vagal tone is increased and the heart beat slows.

This type of heart irregularity, this waxing and waning of the heart rate associated with respiration is one of the common types of cardiac arrhythmia, and since it has its origin in changes in the sinus node, indeed by vagal alterations, it is known by the name of sinus arrhythmia of the respiratory type.

Sinus arrhythmia is most common in children before the age of ten, but often persists through puberty to adult life. Often the irregularity is so marked in young children as to be of considerable concern to the physician in charge who may think that it presages a serious disorder of the heart. If he will study the pulse carefully, he will note the waxing and waning of the rate, and the relationship of these phases to the phases of respiration. If the relationship is not clear, it can be brought out more definitely by having the child breathe deeply, when the respiratory phase can be more easily noted along with the greater contrast in the pulse phases. If these points are established the conclusion is justified that the irregularity is due to sinus arrhythmia.

Sinus arrhythmia is a physiological phenomenon, and hence carries with it no serious prognostic significance. It should not be allowed to influence the physician to change the habits of life of any individual who shows the sign, and should of itself suggest no special treatment. Since the irregularity is quite marked sometimes its chief importance

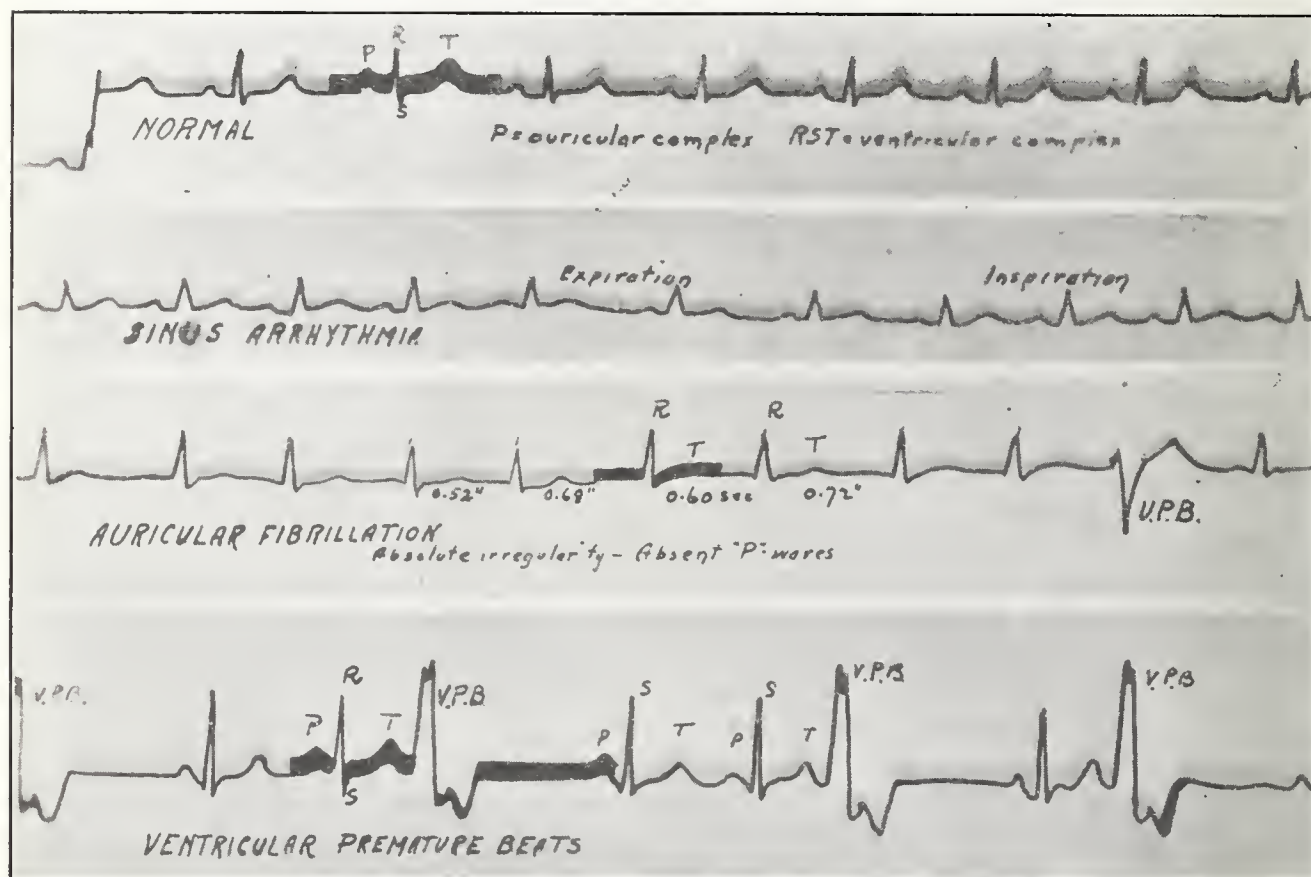
* Read before The Tri-State Medical Society, Memphis, November 22, 1923.

lies in distinguishing it from other forms of arrhythmia, some of which are serious.

When the differential diagnosis can not be made by finger and eye, or ear and eye, recourse may be had to graphic methods, such as the polygraph and the electrocardiograph, the latter of which especially will enable us to clear up the diagnosis without the slightest difficulty.

About the age that the sinus arrhythmia becomes less prominent, there begins to ap-

In this condition the sinus node no longer has control over the heart beat, no longer sends out its rhythmic impulses. An abnormal impulse travels round and round in the auricles over irregular and slightly changing pathways, the head of the wave following the tail, much as a kitten chases the tip of its tail without catching it. This wave traveling around in its own track has been termed by Mines "circus movement," and within the last few years only Sir Thomas Lewis has



The Three Common Irregularities of the Heart Beat.

pear another irregularity of great importance from the point of view of prognosis and treatment. This second common type of arrhythmia is known as auricular fibrillation. Cases have been reported in adolescents, but the disorder becomes more and more frequent with the advancing years. It is commonly associated with mitral stenosis, and with the goiter heart, but in this portion of the country it is especially frequent with the sclerotic heart, and hence in later life.

proved that this is the mechanism of auricular fibrillation.

As a result of this irregular rapid circus movement, the auricles no longer contract as a whole, but remain indefinitely, distended in the diastolic position, with its muscle fibers quivering throughout its extent. The auricle is thus thrown entirely out of function. On account of these fibrillary contractions of the auricular musculature, the disorder bears the name auricular fibrillation.

Ordinary examinations yield no information about the state of the auricles except indirectly. The diagnosis usually rests on the altered activity of the ventricles. One might assume that with such chaotic conditions in the auricles, the ventricular action would be chaotic likewise, and such assumption proves to be true. While each individual ventricular contraction is normal for the conditions under which it is acting for the instant, the ventricular beats follow each other in such helter-skelter fashion that there is no rhythm to them at all. They follow each other irregularly in time, and are quite irregular in their force. For this reason the condition is often spoken of as perpetual or absolute arrhythmia.

If hearts are beating irregularly at a rate of 120, the condition is almost sure to be auricular fibrillation, and the more rapid the rate the more apt is the diagnosis to be correct.

With slower rates the differential diagnosis becomes more difficult, but can be made. In any case it can be readily determined by the polygraph or electrocardiograph, by two criteria, the absence of the phenomena attributable to the auricular activity, and the absolute irregularity of the ventricular phenomena.

The diagnosis of this condition is important because it signifies definite myocardial disease, and offers a relatively poor prognosis unless properly treated. When so treated, however, the results are among the most brilliant in medicine. Digitalis is almost a specific. It should be pushed until the apex rate is in the 70's and continued indefinitely in doses sufficient to hold it there. If this is done patients may get along very comfortably for years.

The third common arrhythmia is the ventricular premature beat. Consider again that the normal beat arises in the sinus node and passes in an orderly manner over the auricles and then the ventricles. After a due and regular interval this occurrence is repeated. At times, however, this rhythmicity is interrupted by an impulse which arises from some spot in the ventricle. In response to this abnormal excitation, the ventricles contract earlier than they should—the beat is premature. When the usual impulse arrives from the auricles just on time, it finds a ventricle that has just contracted or is contracting. The ventricle is refractory and refuses to respond to its usual stimulus. Now unless a second abnormal impulse comes in, as sometimes hap-

pens, the ventricles will remain quiet until the next orderly stimulus comes to it in due time from the auricle. Then it takes up its work as if nothing unusual had happened. There may be a fuller and stronger beat than usual because there has been better filling and a longer rest.

On examining a heart subject to this irregularity, there is ordinarily found a normal sequence of beats interrupted, if the stethoscope is at the apex, by a beat coming prematurely, and followed by a longer pause than usual, the next beat appears just at the time it was due if the rhythm had been regular. The premature beat at the apex may be attended by the usual two heart sounds, and when this happens, there can generally be felt a premature beat at the wrist. At times when the premature beat is too weak to open the aortic valves, there is only the first heart sound heard, and since there is no output from the heart, there will be no radial pulse. The pause then will be just twice normal.

Usually ventricular premature beats are easy to diagnose. But when they come frequently, they may cause coupling or tripling of beats, or a considerable irregularity of the pulse, making the differential diagnosis difficult between this condition and partial heart block or a slow auricular fibrillation. The diagnosis can generally be made from a polygraph record by a process known as spacing, and always by the electrocardiograph, because the ventricular premature beats inscribe curves that are quite characteristic, different from any other made by the heart, except one, easily distinguishable from it.

Of itself the ventricular premature beat has no serious prognostic significance, but it is so commonly associated with cardiac and other conditions, that their discovery should lead to very careful examinations of the heart for other disturbances, or to a search for toxins, as tobacco or coffee, or to a focus of infection. Treatment should be directed toward the accompanying condition, not toward the irregularity.

SUMMARY

The three most common irregularities of the heart are sinus arrhythmia, auricular fibrillation, and ventricular premature beats. They generally can be distinguished by clinical means, always by the electrocardiograph. They should be carefully differentiated because they are quite different in their significance, prognosis, and treatment.

“SOME JOYS AND SORROWS OF THE DOCTOR’S WIFE”*

Mrs. B. F. Walker, Jonesboro

In all ages the healer has been idealized. In literature, both ancient and modern, the physician has held a prominent place, so small wonder is it that those of us fortunate (or unfortunate?) enough to become the wives of physicians, do so with a glorious vision of spending the rest of our lives in an idealistic partnership, with a combination of saint and superman, bearing aloft, excelsior-like, the flaming banner of the Hippocratic oath. But alas! too soon we wake from our dreams of a vicarious service to mankind to find we have married just an ordinary, hard-working, conscientious, sometimes irritable, absent-minded man. Our vision fades, for we are too busy adjusting our lives to the comings and goings of our husband to hunt for a forgotten dream.

There is a timeworn quotation, “He also serves, who only stands and waits.” That is especially applicable to the wife of the rural physician, who often serves in a very vital way; she is sometimes assistant, secretary, bookkeeper, interne, consultant and nurse. A hard life, but there are joys, little quiet drab joys it may seem to the fond heart full of iridescent glow. Her life is so circumscribed by her husband’s profession that it has little of individuality; but in after years, as she turns the leaves of memory, she finds many pictures; long leisurely drives with her husband through all the changing seasons; kindly folks eager to welcome the doctor’s wife and to share the choicest fruits and flowers with her; friendships made as the wife of their doctor, that will prove unwavering throughout the years. One comes to enjoy many people intimately and sharing their sorrows as well as their joys.

But there are other pages not at the time so amusing; but in after years we look back and laugh at the foolish things we were. There is the woman who grows tired of the doctor’s office and comes to visit the doctor’s wife, and sits and rocks serenely while the children, all

apparently suffering from chronic coryza, climb over the furniture, attack the piano, finger the books with little sticky hands, run indoors and out, want innumerable drinks, drop the puppy, scare the cat, and do all the other horrid things that *some one else’s* children can do, and after playing for an hour around your own precious baby, the mother announces, “Guess I’d better be going, the kids is got a cough, and Ma she says its ‘whoopin’ eough, I wanted to see what Doc thinks about it,” and she picks up her brood and leaves you, thankful, but stricken with forebodings of infections. Then, there is the kindly old sister who so much enjoys the pains and misfortunes of others, and visits with the doctor’s wife to see what she can hear from her; but as the doctor’s patients are his, not his wife’s, she knows little about them, fortunately, as the old lady is persistent, and it takes more strength of character for a woman to keep her mouth shut than a man.

The country doctor’s wife knows the families her husband practices for,—sometimes too well, as in the case of one who told me that her husband had a patient who would come on Sunday to consult the doctor, bring a large family and spend the day. She tells them what to do in emergencies, for a baby with spasms, earache, headache, little ills that little remedies can relieve; she lets her biscuits burn, while they, at the phone, tell her their troubles, and she stays at home to attend to calls and answer the telephone until she loses her social flare and finds herself too easily contented with her home and children. Truly, the country doctor’s wife must live by faith; faith that sometime there will be a good crop year and everyone will settle their accounts, but usually it is otherwise; and often the physician is put at the end of the list and then possibly paid commodities, useful and good it is true, but things we had rather do without, and have the price with which to buy “hyacinths to feed the soul.”

There is a most erroneous belief found, not only in rural districts, that the doctor is a moneyed man and never knows what it is to need money. When many people in a community have this point of view it is easily seen what effect it will have on the doctor, his home and his family. Did you ever speak of some badly needed repairs about your house, or

* Read before the monthly meeting of Craighead County Medical Society, Jonesboro, Feby. 21, 1924.

work in your garden, and have your doctor husband say, "I have a man already paid to do that and I don't want to spend the money on it?" Neither do you, as there are many other places to put that particular sum of money; so you decide to wait for the man who is already paid. You wait, and you *wait*, and you WAIT. "It is hard for the mill to grind with water that is past."

"The web of our life is a mingled yarn, good and ill together," so wherever we live, or what our station in life we find as wives of physicians, our lives, that we perforce must share with others, a mingling of joys and sorrows. We realize every day, that the physician more than any other class of professional men, is a debtor to his profession, and pays with broken rest, uneaten meals, exposure to heat and cold, his hours of recreation and companionship; so we cheerfully and philosophically accept this and start blithely out to do our duty, as the catechism says, "In that state of life in which it has pleased God to call us." We cheerfully endure the delayed serving of meals, so carefully cooked; the hurried one that had been so exactly planned; the holiday dinner with no one at the head of the table; the broken engagements, the disappointments, until we learn to be no longer disappointed; the sleepless nights, when you have not yet learned to feel safe, quite alone; the anxiety, when hours of absence lengthen, with no explanation, and your imagination pictures an overturned car on a lonely road; the broken rest, as you sleepily shiver trying to find your doctor for some urgent case, for as I heard a physician recently express it, "We don't like to let them get away," the endless anxious hours over your own feverish baby with Daddy far away; the duplicity you practice trying to secure for your tired husband leisure to eat a warm meal or to secure a few hours of badly needed rest.

Sometimes, too, this duplicity comes back like a boomerang to strike you as in the case of a four-year-old of my acquaintance, who was developing an astonishing ease of alibi whenever accused of wrongdoing. One day his mother reproved him for some glaring untruth, was painting a heart rending picture of the untimely end of those who stray from the straight and narrow way of truthfulness. The young observer, apparently indifferent to his possible fate said, "But mother

you don't always tell the truth." His outraged mother protested, but he stuck to his point, "This morning, when Daddy was eating his breakfast you told Mr. S. that he was gone."

Many little worries come naturally with our manner of living for which we attach no blame to our husbands, as we realize they are our part of sacrifice to his profession; but there *are* times when we decided that "truly everyone is as God made him and sometimes a great deal worse." This is glaringly self-evident when the question of the almighty dollar arises (and it will not hide its head) and your one time hero insists that he can't give you a regular allowance. Then, do you do like the little Mrs. Dr. of Gopher Prairie, rebel at going daily to ask largess of your husband wherewith to feed him? Listen to Carol and Dr. Will Kennicott, "I am not economical I can't be, thanks to you, I ought to have an allowance, a regular stated amount each month." "Fine idea! Of course a regular stated amount. I get a regular amount, \$1,000 one month, \$100 the next if I am lucky." Does it sound familiar? May I mention here the book from which this is quoted? Of its value from a literary standpoint, I can say little, for I must admit a Mid-Victorian mind as regards literature; but, whatever Mr. Sinclair Lewis is, he has surely at some time known, intimately, a doctor's home. How else can he betray these glimpses that we think are hidden in our hearts, of a wife's view of her husband's professional life?

If we find in our busy lives many little irritations and petty disappointments, we also find much of recompense. In our quiet moments we realize that it is no sin for a man to labor in his vocation, and we become reconciled to the thought that "no man has a right to become a physician if he does not bend everything to the work of getting sick people well," though sometimes that "everything" includes a wife who feels woefully neglected. And to us, as to Carol Kennicott, may be given a vision of our matter-of-fact husband as a high priest of his profession with the "heroism of a wireless operator on a ship in collision; of an explorer, fever-ridden." We see him quietly and unostentatiously carrying into the sick room the cheerful heart, which one, wiser than we, tells us, "does good like medicine." We see him the friend of the poor

and suffering, giving freely his work, his time, his strength where it will bring him little or nothing in return. We see him in some humble home as the central figure in that great painting of his profession, "Sitting with his hand on the thread of fate, the arbiter of life," holding back with his presence the dread visitor who stands so near. We see in him the "Savior of Bodies" radiating hope and confidence to anxious hearts. Surely it is a great thing to choose so noble a profession; and while we may not have what we wished for, may not be what we have hoped for, we are truly thankful for our small part in a life spent worthily "measured by deeds, not words."

Castor oil is one of the best purgatives.

Diluted phosphoric acid has no action other than that of a pleasant acid.

Balsam of Peru is an efficient parasiticide in scabies.

Cascara sagrada aromatic fluid extract is one of the best laxatives.

There is no internal use for phenol, boric acid, or silver nitrate.

The therapeutic effect of sodium and potassium iodide is the same. Sodium iodide is less depressant and less disagreeable to take.

In giving phenacetin in tablet form, pulverize before swallowing. Plenty of water to be taken with it.

Atropine represents the whole activity of belladonna, there is no necessity for the use of any preparation of belladonna except the plaster and ointment. Locally, they act as a sedative. Belladonna liniment is too dangerous for use.

KEEP THIN OR FAT BY WATCHING DIET

Right Food Is Better Remedy than Pills.
Are you too heavy?

Then omit from your diet cream soups, potatoes, gravies, milk, butter, sauces, sugar, desserts, cereals. Instead eat fresh vegetables, fruits, some meats and stock soups.

As soon as your weight approaches normal, you may again include in your diet some of the forbidden foods.

Or perhaps the scales tell you that you are too light.

Then you should eat cream soups, gravies, potatoes, cream, milk, butter, sugar, cooked cereals, in addition to fruits, vegetables and meat.

The chances are that you are constipated. Most Americans are. You will find it more healthful to regulate your diet than to take pills:

If You Are Constipated

Constipated persons should omit from their diet the following:

1. White flour bread (hot), pastry made with lard and baking powder preparations, cake and custard puddings.
2. Meats: salted, dried and smoked meats, poultry, salted and dried fish.
3. Vegetables: beans (dried).
4. Cereals; rice farina.
5. Miscellaneous: cheese, cocoa and chocolate, milk boiled, tea, coffee substitutes made of wheat, corn, barley.

Constipation should be combated by choosing a diet from the following:

1. Whole wheat and graham flour products.
2. Fruits such as prunes (dried), peaches (dried), and stewed fresh fruits of all kinds.
3. Vegetables, such as beets, celery, corn, cauliflower, onions, peas (green), rhubarb, spinach, squash.
4. Meats, such as wild game, rabbit, duck, pigeon, quail, deer, etc., liver, oysters.

Authority for the above diet remedies is Dr. Jesse Feiring Williams of Columbia University, who in the March issue of *Hygeia*, the popular health magazine published by the American Medical Association, lays down six rules for health living.

Dr. Williams' article, the second part of which will appear in the April issue of *Hygeia*, is entitled "The Rules of the Game." His six rules for health are outdoor air, wholesome food in proper amounts, intelligent care of the body, rest and sleep, thinking straight, and exercise.

THE JOURNAL

OF THE

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WILLIAM R. BATHURST, SECRETARY-EDITOR
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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

THE ANNUAL MEETING AGAIN

With probably only one more issue of the Journal before the annual meeting convenes at Fayetteville on May 20th, it is in order to make another appeal to every member to arrange to attend. It will be well worth some personal sacrifice for the advantages to be gained from the scientific program, which has become more and more attractive as the making up of the program has progressed.

Since our February issue, in which several names of distinguished speakers were announced, Dr. William Allen Pusey of Chicago, President of the American Medical Association, has accepted an invitation to be present and address the session. Other distinguished guests include Dr. James Kennedy of the Joseph Price Hospital, Philadelphia; Dr. W. A. Evans of the Health Department, Editorial Staff, Chicago Tribune; Dr. James Case of the Battle Creek Sanitarium; Professors Sure and Hale of the University of Arkansas, and our former member and president, Dr. Frank B. Young now located at Gering, Nebraska. A complete list of the papers to be read and their authors will be found on another page of this issue. Read it and ask yourself whether you can afford to miss a meeting which promises so much. The assignment of space on the program will be set forth in the April issue, together with full details of the program and local entertainment.

With such a program and entertainment schedule, and with the improved railroad facilities for reaching Fayetteville, there were never more propitious prospects of a record breaking meeting. Fayetteville is one of the beauty spots of the State. In the midst of the fine farming and fruit belt; with fine roads and picturesque scenery; the home of the University of Arkansas; where many active members of the society reside, where many received their education; the home of the late Dr. W. B. Welch, the first President of the Arkansas Medical Society, whose ability, integrity and professional attainments have furnished an ideal for his associates and practitioners generally to aspire to gain. Fayetteville is the ideal spot for the meeting. Let us try to break all attendance records.

WHERE NO ENDORSEMENT IS POSSIBLE

It is a well established rule that no medical association can accept or indorse any theory of new practice of medicine—nor any possible apparatus or remedy, if the supposed discoverer of such theory or practice insists on withholding the formula or method of diagnosing or treatment from the profession. It is a just and honest rule. Only so can the public be protected against the charlatan. Certain it is that the science of medicine is not an exact one. The radical changes in treatment and the uses of remedies are sufficient proof of that fact.

Considering the changes that have occurred and the constant new discoveries in medical science, it is in order to apply to medicine the advice of St. Paul to "try all things. hold fast to that which is good." And that is what the progressive physician does. He does not condemn any new idea because it is new, because it is opposed to fundamental ideas taught in the schools. If such were to be the case, there would be no progress whatever. But, on the other hand, he cannot adopt any new idea simply because its efficiency is proclaimed by those who refuse to submit their claims to fair tests.

The American Institute of Homeopathy at its last convention unanimously adopted a resolution defending its position on this question as follows:

"Resolved, that the seventy-ninth annual session of the American Institution of Homeopathy does not approve or endorse any so-called method of cure which is unwilling to submit its claim to impartial and legitimate observation."

While no mention was made in the resolution or preamble of the Electronic theory, it was brought out in discussing the resolution that it was intended to apply to the Abrams theory. It seems that an advertising circular sent out by the proponents of that theory stated that it had been indorsed by the homeopathic organization. Not only did the Homeopathic Institute go on record as far as the national organization was concerned, but it transpired that, as far as could be learned, no federated, allied or affiliated homeopathic organization ever had given the theory its indorsement. The position of the Homeopathic Institute is absolutely sound. The Abrams

theory may not be of sufficient importance to merit like action by the Arkansas Medical Society, but every member should assume that position toward this or any other theory so long as its proponents observe the mysterious method of secrecy, or unless investigation should support its trustworthiness.

STATE TAXATION AND THE PROFESSIONAL MAN

The Journal of the Arkansas Medical Society is not in politics. But there may arise public questions which directly affect individual members of our society, and in such case it is right and proper that the Journal take a hand. Such a measure is the draft of a proposed tax measure to adopt, which Governor Thos. C. McRae has called for another extra session of the Legislature to convene March 24. If the tax proposed were an equitable one the Journal would have nothing to say. But, it is based on an erroneous idea that professional men are not paying a just share of the taxes and that the deficiency should be made up in the form of an increased State income tax. The original draft, afterward modified, struck only at professional men, salaried men, and wage earners. In that original draft, as was shown by Mr. Ashley Cockrill in a letter to the Gazette, the discrimination was so marked that it may have resulted in the modification which followed. For example, if a man earned an income of \$12,000.00 a year from the use of property and the income tax amounted to \$485.00 he was allowed a credit of what he had paid as a property tax and in most cases that credit would wipe out the income tax entirely.

Probably few would object to an income tax reasonably levied. But the tax is excessive. It ranges from one to six per cent. In the rich State of New York one per cent on the first \$10,000.00 is the minimum and three per cent on \$50,000.00 the maximum. In Missouri the rate is one per cent. The North Carolina Act on which the Arkansas draft is modified, has a maximum of three per cent. Why should an income tax in Arkansas place greater burden on the tax payer than is imposed on tax payers in far more wealthy States? Why should the Arkansas income tax exceed in rates all other States? Another inequitable feature is that property in Arkansas is not only low in price compared with that in other

States, but it is assessed only ostensibly at one-half of its supposed value, and in many cases much below that. So that income derived from property is given an immense advantage over income derived from brains. One palpable fact is overlooked. Property is tangible. When the professional man gets past his earning capacity by age or sickness his property remains and continues to earn. When he dies the property still is there, increased in value annually, to descend to his heirs. The income derived from brains must be made while health and capacity remain. Sickness and age decrease or eliminate it. Death eliminates it. The income stops automatically when the brain that created it ceases to function.

As pointed out by Mr. Cockrill in an excellent and convincing little pamphlet he has published, Governor McRae has invited criticism. He obtained it from many sources. Civic organizations in several of the cities of the State have condemned the draft in emphatic terms. Affecting, as it does, every member of the Arkansas Medical Society it would appear in order for each local society, at least every physician, to express an opinion. And so inform his legislators.

The extra session will saddle an additional cost of at least \$50,000.00 on the tax payers, and the chances are that, the Legislature will refuse to adopt the proposed measure when they find how unpopular it is among the people they represent.

Abstracts.

IDIOSYNCRASY TO CINCHOPHEN

The case cited by F. J. Scully, Hot Springs, Ark. (Journal A. M. A., Feb. 23, 1924), emphasizes the danger of indiscriminate use of cinchophen. An unusual severe and alarming reaction occurred in this case similar to that observed after large injections of foreign protein. The rapid, weak pulse and low blood pressure with good heart action indicated a marked depression in his vasomotor system rather than a cardiac phenomenon. There was no widening of the cardiac dullness and no weakness of the heart tones, though the pulse was rapid and feeble. The abdominal veins were evidently dilated with a stasis of blood, as pressure on the abdomen brought about a rise of blood pressure and relief of the symp-

oms. The reaction is regarded by Scully as a peculiar individual sensitiveness to the particular drug employed. A single tablet of cinchophen caused the reaction on several occasions.

Personal and News Items.

Dr. and Mrs. Wm. Herbert Poynor of Harrison recently visited in Little Rock.

The next meeting of the American Medical Association will be held in Chicago, June 9-13.

Dr. T. E. Brewer of Beebe visited in Little Rock this month.

Dr. George S. Brown of Conway, member of the Arkansas Tuberculosis Sanatorium, made a business trip to Little Rock this month.

The annual meeting of the Southern Medical Association will be held in New Orleans, November 24-27.

Dr. Victor H. Hallman of Hot Springs attended the recent ceremonial of the Shriners in Little Rock.

Outstanding men quickly rise to heights beyond the contract practice leaving the mediocre doctor struggling with routine and collection of small monthly assessments.

D. Morgan Smith of Little Rock attended the recent Congress on Medical Education, Medical Licensure, Public Health and Hospitals in Chicago.

We advise that during the pre-school period, the family doctor should attend to vaccination, to the administration of the Schick test, followed by toxin-anti-toxin if indicated, and, if thought desirable, to the giving of the typhoid prophylactic.

Have you paid your dues for 1924? If not, remit to your county secretary at once. Plan now to attend our Fayetteville meeting. A very attractive program has been provided. Be loyal to the organization which necessity and you have made so important a factor in our professional life.

Drs. Watkins, Shipp, Bond & Rhinehart have dissolved partnerships. Dr. Watkins is now located in the new Hall building. The

others remaining in the Donaghey building. Dr. B. A. Rhinehart, is associated with his brother Dr. D. A. Rhinehart, limiting their practice to roentgenology and clinical pathology.

Lonoke County Medical Society is trying a plan of what might be called "the slow infiltration process" that might be well followed by every county in the State.

They have decided to send a yearly subscription of "*Hygeia*" to each of their State legislators. If each county society will do this, as suggested by Dr. Henry Thibault of Scott, it will have the field much better prepared than it has ever been before, and the cost to each local society will be trivial. "Seed so widely and wisely sown as these subscriptions will be bound to bear fruit."

Dr. E. C. Levy, Director of Public Welfare, Richmond, Va., in an address recently delivered said, "It is to the interest of the medical profession and the health authorities to uphold each other's work. The large part played by each in the other's success should assure mutual consideration and helpfulness on the part of the health officer and the medical profession, both collectively and individually."

"Having shown that the two professions should co-operate because it is distinctly to the advantage of each to do so, I would, in closing, plead for that much fuller and more satisfactory co-operation which must arise from true underlying esteem, each for the other, from sincere admiration on each side for the work which the other profession is doing and for the part played by individual members of both professions in the big affairs of the world."

ANNOUNCEMENT

SCIENTIFIC EXHIBIT FOR THE FAYETTEVILLE MEETING

The Committee on Scientific Exhibit of the Arkansas Medical Society wishes to make the scientific exhibit an important and interesting part of the Fayetteville meeting. To do this the committee must have the support and assistance of those men who have material for the exhibit.

Any material of whatever kind or nature that is of medical interest and properly belongs in an exhibit will be accepted.

Individuals physicians, clinics, groups and medical institutions are urged to write to the nearest member of the committee describing their material so that space may be reserved.

E. C. MOULTON, Fort Smith,

D. A. RHINEHART, Little Rock,

H. T. HARR, Fayetteville,

Committee.

Obituary.

DR. ARTHUR C. ELLIS — Dr. A. C. Ellis of Hot Springs, died February 23, 1924, aged 43. Dr. Ellis was a member of a pioneer Arkansas family and was born and reared in Hot Springs. He is survived by his wife, three sisters and three brothers, one of whom is Dr. Leonard Ellis.

DR. WARREN KELLEY — Dr. Warren Kelley of Benton died March 7, 1924. Aged 58. Dr. Kelley was former mayor of Benton, and was a leader in county and local civic affairs. He is survived by his wife and two brothers.

County Societies.

WHITE COUNTY

(Reported by Sam J. Albright, Sec.)

The White County Medical Society met at Searcy, February 11, at 2:00 p. m.

Present: Henderson, Burge, Jones, Jelks, Moore, Hassell, Little, Woodyard and Albright.

The following officers were elected for 1924: President, R. L. Little, Judsonia; Vice President, T. W. Henderson, Judsonia; Secretary-Treasurer, S. J. Albright, Searcy, Delegate to State Society, W. H. L. Woodyard, Judsonia; Alternate, J. L. Jones, Searcy.

COLUMBIA COUNTY

(Reported by C. T. McWilliams, Sec.)

The Columbia County Medical Society met February 12th, 1924. The following officers were elected for the year 1924: President, H. M. Kitchens, Waldo; Vice-president, W. H. Horn, Taylor; Secretary-Treasurer, C. T. McWilliams, Magnolia.

Dr. T. H. Jones, recently of Morrilton, was enrolled as a member.

The scientific program for the evening was "Typhoid Fever." The discussion was opened by Dr. W. H. Horn.

ST. FRANCIS COUNTY

(Reported by R. E. Oliver, Sec.)

The St. Francis County Medical Society met at Widener, February 12, 1924.

Present: Chaffin, Pollard, Caldwell, Rush, McCowan, Boggan, Purnell and Oliver.

The following officers were elected for the year: E. W. Pollard, president; E. J. Chaffin, secretary-treasurer; J. O. Rush, delegate; E. J. Chaffin, alternate.

Hughes was selected as the next meeting place, March 12th.

The meeting was enjoyed by all as a social and business feature. All present paid their annual dues to the Secretary. After adjournment, a salad course and coffee was served informally by Mesdames Hall and Oliver.

CRAIGHEAD COUNTY

(Reported by Thad Cothorn, Sec.)

The Craighead County Medical Society met February 21, 1924, in the dining room of the Hotel Noble, Jonesboro. This was a meeting for the doctors and their wives and sweethearts. It was well attended and an interesting and entertaining time was had. Several out-of-town members and their wives were present. Dr. Lutterloh had kindly provided an abundance of turkey which with the aid of the chef and the service of the Hotel made it pleasing to the eye and satisfying to the appetite.

Dr. Jackson, in his imitable way, presided as toastmaster and made the after dinner part of the meeting very enjoyable.

Dr. Barnes, of Bono, our State Senator, was called upon for a talk and responded by giving an account of his stewardship and explaining his stand on various matters.

Dr. Altman next told us of some of the duties of the county health officer and stressed the need of our county having a FULL TIME MAN. The duties of the office are too much for a busy doctor to look after partially, as we are now forced to do.

In introducing the next speaker, our toastmaster enumerated some of the duties of the city health officer which were as follows: That it is incumbent upon him to advise which

of the elderly ladies would look better with their hair bobbed and which would look better by not having it bobbed; also about the various tints and shades of face paint. In responding, Dr. Overstreet, our city health officer, said that he had sadly neglected this part of his work but, as they had called his attention to the matter, he would arrange for suitable hours for consultation for those wishing his expert advice.

Our humorist, Dr. Ramsey, next entertained us by the narration of some observations of the various phases of every day life. His ready and sparkling wit brought forth many hearty laughs.

The major feature of the evening was a paper by Mrs. Walker on the "JOYS and SORROWS of a Doctor's wife." This paper showed that Mrs. Walker had given much thought to her subject and her way of expressing it, made us realize that the wife is more of a partner to the doctor in his work than many of us realize. Her paper was so greatly appreciated that it was unanimously voted that it be published for the benefit of the doctors and their wives who were unable to be present at this meeting.

Drs. Scott, Meyer McCurry and others responded with short talks.

Just before adjournment, Mrs. Jackson, on behalf of the ladies present, thanked the doctors for having invited them to this meeting and assured us that they were ready for future invitations of a like kind.

UNION COUNTY

(Reported by D. E. White, Sec.)

The Union County Medical Society met January 22, 1924, at 7:30 p. m., at Dr. Mitchell's office. The minutes of the previous meeting were read and approved. Dr. H. H. Niehuss was on the program but on account of his absence no program was presented.

There being only a few members present practically no business was brought up and disposed of except one matter. A petition was presented in written form asking for a two hundred and fifty dollar contribution to a hospital in Little Rock for the purpose of furnishing a room to be donated collectively by the members of the Union County Medical Society. This was voted on and it was unanimously decided by the members present that, owing to a new annex for our hospital being

planned and to our churches that are being built or are to be built in the near future, we could not afford to contribute to an outside proposition at the present time.

No further business being brought up the meeting adjourned until the next regular meeting.

The meeting of February 5th was called to order at 8:30 p. m. by the vice-president, Dr. A. D. Cathey. Nine members were present. Minutes of the previous meeting were read and adopted.

As there was no business to be attended to the program was called for; the latter consisting of talks to be made by Dr. Caruthers and Dr. Hoge of Little Rock. Dr. Caruthers made a very interesting talk on "Clinical Observations on Bone and Joint Surgery." He stated that the time should now be passed when a fractured bone was treated merely by making some kind of an attempt at reduction, putting on some kind of splint, and seeing the patient six weeks later, taking it for granted that at that time the patient should be well and all right in every respect; that the past war caused many new methods and kinds of splints to be introduced in bone and joint surgery, and that since that time it should be just as distinct a specialty and require just as much training as the specialty of eye, ear, nose and throat work. He illustrated by lantern slides and x-ray plates many very interesting and instructive cases, showing them first before treatment and next after treatment, and judging from his illustrations and lecture he surely must know how to properly treat most any kind of a bone or joint condition. Dr. Hoge, pathologist at University of Arkansas Medical Department, also gave us a very instructive lecture pertaining to pathology, talking mainly on bone tumors. He gave some very important differential points between sarcoma of the bone and some of the benign tumors that closely resembled sarcomata. The program was very much enjoyed.

The meeting of February 29, was called to order 7:45 p. m. by the president, Dr. S. J. McGraw. The minutes of the previous were read and adopted.

Ever one being eager for a program, it was decided to have the program before attending to any business. At last the long delinquent Dr. Niehuss had shown up and he presented a very interesting paper on "The Manage-

ment of the Third Stage of Labor," which he stated was an abstract taken from a paper written by Dr. Charles A. Gordon of Brooklyn, N. Y. In this paper he dwelt mainly on the abnormal third stage instead of the management of an ordinary normal third stage, and cited some very unusual cases. It is very seldom that the physician has any difficulty in expressing the placenta; but when he does, then is the time that he wonders just what is the right thing to do. These points were well brought out in his paper. General discussion followed and several of the members reported personal experiences in regard to the third stage.

Having received a copy of a resolution adopted by the Pulaski County Medical Society with their request for our society to consider the adoption of same and send the resolution to our Representatives and Senators, the resolution was read before the members and was unanimously adopted. The secretary was instructed to send a copy of this resolution consisting of three parts and exactly as that adopted by Pulaski County Medical Society to Senators Caraway and Robinson, and to Tillman B. Parks, M. C.

There being no further business except that to be attended to by the staff of the Warner Brown Hospital, the meeting adjourned.

Book Reviews.

Alcohol and Prohibition, In Their Relation to Civilization and the Art of Living.—By Victor G. Vecki, M. D., San Francisco, Calif. Published by J. B. Lippencott Company, Philadelphia. Price \$2.00.

This well known physician presents this book to show the legitimate use, as well as the abuse of alcoholic beverages, the desirability of temperance, and the abuses in interpretation of the enforcement of prohibition.

Habitual Constipation—Its Causes, Consequences, Prevention, and Rational Treatment, by Ismar Boas, M. D., translated by Thomas L. Stedman, M. D. 12mo. 299 pages. Published by Funk & Wagnalls Company. Cloth, \$2.00 net.

This book will prove of unusual value to not only the physicians, nurses, and dietitians, but to the lay public, and to parents who would bring up their children free from this extremely prevalent complaint. The diet lists and descriptions of the values and characteristics of various foods are features of the most practical and helpful character.

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Original Articles.

FOCAL INFECTION IN ITS RELATION TO INTERNAL MEDICINE

J. E. Legge, M. D., Cumberland, Md.

The expression "focal sepsis" is now a common one in conversation concerning practically any medical subject. When we say "focal sepsis" we mean a condition resulting from the presence in any part of the body of a collection of pus which is able to give rise to bacterial poisons, and to permit their entrance into the blood stream, thus scattering them to remote sections of the organism.

This conception of focal sepsis as a probable cause of many diseases, heretofore apparently unrelated to the areas where such foci of infection exist, is a comparatively recent one. Although it had its actual origin many years ago, no serious attention was given to such a consideration of the genesis of disease until the second decade of the present century, when Billings, Rosenow and their co-workers began to make public the results of observations which had extended over a long period of laborious and exhaustive research. They were able to prove that many diseases hitherto supposed to be due to disturbances of nutrition, were in reality a secondary manifestation induced by the presence—in all probability wholly unsuspected—of a nidus of local infection, which was constantly loading the blood stream with bacterial toxins. As Rosenow has put it: "The demonstration that streptococci in infected tonsils and teeth may have elective localizing power, placed these so-called harmless infections, teeming with bacteria, in the front rank of importance as hematogenous infections. Corroborative clinical evidence, indicating casual relationship between the focus of infection and systemic disease are not lacking. The foci are present in

demonstrable form in a high percentage of patients with the diseases under consideration. Acute attacks often follow exacerbations of infections in sinuses, tonsils and teeth.

"The presence of streptococci having elective affinity for appendix, has been demonstrated in the tonsils at the time of acute tonsillitis following appendicitis, and their absence as recovery ensued." Rosenow has also demonstrated a similar relation in cases of ulcer, following acute infection in the tonsils and sinuses.

Such foci of infection may be primary, and in this case will usually be found located in the tissues lying in direct communication with a cutaneous or mucous surface, or they may be secondary, having their origin by communication with some antecedent infection, lying either in some adjacent tissue, or so situated that pathogenic organisms can be carried from it by the blood stream of lymph channels. The most common origins of focal or "regional" sepsis are, infections of the tonsils, both faucial and nasopharyngeal, or less frequently of the mastoid; infections originating in the teeth and jaws, especially when these conditions are such as to induce pyorrhea dentalis or alveolar abscess; and infections of the nasal accessory sinuses. Less frequently, we may find these foci of infections in the form of sub-mucous or subcutaneous abscesses, or abscesses located beneath the nails; as chronic infections of the bronchi and bronchiectasis, or of the gastro-intestinal tract and the related organs of digestion, or as chronic infections of the genito-urinary tract. Thus cholecystitis, appendicitis, or intestinal ulcers; salpingitis, cystitis and especially prostatitis, besides being troublesome and serious conditions in themselves, may be likewise a menace to some hitherto healthy area of the body.

As an example of secondary foci, lymph nodes are not infrequently infected and will serve as reservoirs to retain the toxins after the original source has been removed. Often a vicious circle is instituted; the constant absorption of irritants or poisons from the mouth, results in irritation of the kidneys, and perhaps later, chronic nephritis. Many gastro-intestinal disturbances, such as hyperacidity and stomach ulcer, are very likely due to mouth infections. Inflammatory conditions in the alimentary or genito-urinary tract are—as already noted—likely to lead to the formation of infective foci, and we thus have a continuous process gradually permeating the system with poison and undermining the entire organism.

Many authors, following in the path hewn out by the pioneer investigators, have contributed reports relative to the number and variety of pathologic conditions which may have originated in this way. H. B. Anderson of Ontario, made a careful study of the tonsils of 937 patients presenting a wide diversity of affections, laying especial stress upon obtaining a history of past tonsillar trouble, as well as the more usually recorded systemic diseases, and in every case carrying out a thorough bacteriological examination of swabs from the tonsil crypts, or of the cheesy or purulent exudate expressed from the tonsils. Two hundred and sixty times, *streptococcus viridans* was demonstrated, and it is the author's observation that this organism is especially associated with a markedly edematous inflammation, rather than with the distinctly cryptic and purulent types. Hemolytic streptococcus was found in seventy-nine cases, and Anderson believes this type of organism can nearly always be demonstrated in the throat involvement common to such diseases as scarlet fever, measles or diphtheria, or in post-nasal or sinus disease, where we have drainage into the naso-pharynx.

The tabulation of Anderson's cases in regard to the systemic infections from which they suffered is very instructive. In the rheumatic group, including arthritis, lumbago, sciatic and other pains, and neuritis, there were 166 cases—27.1 per cent; the cardiovascular infections including valvular disease, hypertension, myocardial disease and angina pectoris, numbered 115 cases, or 20 per cent; one hundred, or 17.4 per cent, were cases of simple goitre; while 116, or 20 per cent, were gastro-intestinal in character, including ap-

pendicitis, gastric and duodenal ulcer, hyperacidity, gastric atony, cholecystitis and gall-stone disease, and "indigestion" of uncertain character. Diabetes and glycosuria made up four per cent.—twenty cases; while there were thirty cases of respiratory diseases, bronchitis, asthma and pleurisy, representing 5.4 per cent. More than half the patients in this series presented oral sepsis. Healthy tonsils are rarely, if ever found, where the mouth is seriously infected."

The value of such an investigation as this one, is much greater to the internist, or general practitioner, than those commonly reported in literature relating to a more homogeneous group, such as is found in a military encampment, a hospital, or a closely related aggregation of individuals subjected to an epidemic; and strikingly demonstrates the wide-spread relation between general medical disease and focal infection which can be observed in the routine of general practice.

Even more important, if possible, is the connection which can be so readily established between such infections and septic conditions originating in the mouth and gums. Osborne has stated that he does not believe there is "a greater menace to health today than crowned and bridged teeth, to say nothing of imperfectly filled and dead teeth, and of pyorrhea alveolaris" though he qualified this by adding that "infection of the tonsils and the sinuses adjacent to the nose must never be overlooked. We do not know how many pneumonias, following or accompanying influenzal affections, occur because pneumococci are being carried in the mouth. We do not know how many times irregularity, weakness and actual disease of the heart are due to germs harbored in the mouth. Neither do we know how frequently the *Streptococcus viridans* is the cause of heart disease, or adds its fatal potency to an already established chronic disease."

So much has lately been said and written on the subject of infected teeth that physicians generally are paying more attention to the condition of their patients' mouths, and including a careful scrutiny of the teeth and gums in the routine physical examination; but this way may be called a decidedly recent "innovation" in medical practice. No veterinarian would make the most cursory examination of an animal patient without inspection of the state of its teeth, yet how many a poor human has suffered for years with

"rheumatism," or kidney disturbance or even serious brain or nervous affections, when the true cause lay beneath some expensive and imposing artificial denture, the condition of which it had never occurred to his physician to examine?

Billings has said that emphasis should be laid on "chronic alveolar abscess, often unrecognized by the patient. Film roentgenogram of the jaws is often the only means of recognition." It has even been suggested that cancer rarely occurs in any part of the body without a long-standing irritation preceding it, and that chronic septic conditions in the mouth may very well be the commonest predisposing cause of cancer. It was observed by Steadman that the great majority of persons suffering from cancer situated in the alimentary canal have advanced pyorrhea alveolaris which has been present for many years, and that when cancer of the stomach occurs, chronic gastritis—which may be induced by the constant swallowing of pus—has usually been present for a long time prior to the development of the malignant disease.

We know that infection may exist in and around the teeth for extended periods, without causing any symptoms appreciable by the patient. A dead and putrified nerve or tooth pulp is full of bacteria capable of generating a large variety of poisons. Both the organisms themselves, and the toxins for which their presence is responsible, may serve to disseminate the infection. If the bacteria enters the blood stream, they are ordinarily destroyed by the phagocytes, but even if they do not grow or multiply in the blood stream, they may be carried by it to some location favorable to multiplication, so that a secondary nidus is set up.

Fortunately, as Tousey points out, "a dental abscess almost always produces symptoms due to absorption of poisons before any direct germ extension takes place. These symptoms are as manifold as the different organs to which the blood carries the poison. Two persons are seldom affected in exactly the same way. Some of the subjects have high blood pressure with a tendency to result in arteriosclerosis, and finally apoplexy and death. Others display some of the different lesions and symptoms called 'rheumatism.' Others have neuritis, neuralgia, and various eye troubles. Indigestion is a common effect. And there is a general agreement with the Mayos that ulcer and cancer of the stomach, and can-

cer of the gall-bladder, are usually due to dental infections."

A great variety of symptoms are now everywhere recognized as having their origin in dental infection. Often these symptoms are not grave enough to cause a thorough search to be made for their cause. Many patients dread to "have the teeth x-rayed" because they are fearful that "some of them have to come out." This short-sighted policy frequently leads to delay which in the end proves fatal to the tooth, or even to the patient himself. If the dentist is able to give prompt and early treatment to an infected tooth, the chances of the particular tooth are immeasurably increased, and the probability of the systemic infection avoided. Moreover, there is less likelihood of other teeth becoming infected. As Tousey puts it: "The burden of proof should not be thrown upon the patient. He should not be expected to prove that he is actually sick, and more especially to prove that his sickness is due to the infected tooth. If conditions are such that the tooth cannot be treated, and it manifestly may be a focus of infection, and the patient has symptoms well known to be often due to dental infection, the patient and not the tooth, should have the benefit of any doubt."

Sinus disease has been described by Hamill as "merely a focal infection in a cavity which, because of the swelling of the lining membrane, can become a place where pus is under increased pressure, a place from which septicemic or pyemic—these terms are used in the broadest sense—involvement of the rest of the body may occur." While headache and optic complications are perhaps the pathologic conditions most commonly attributable to sinus infection, disturbances in very remote parts of the body have occasionally been correctly referred to such an infective focus. It has been remarked that a sinus makes an excellent culture tube for any variety of organism, and it can be seen how readily the sinuses lend themselves to secondary infections from the teeth or tonsils.

It is likely that in male patients, many infections can be traced to a latent prostatitis, a fact which is only just beginning to be recognized. There is no way of telling how many useful teeth have been removed, and how often perfectly unoffending tonsils have been rigorously enucleated, in a futile endeavor to extirpate an infective focus which lay "silent" and unsuspected in the prostate. Unless the

physician elicits a positive history of gonorrhea he very seldom casts any suspicion upon the prostate. Chronic prostatitis may follow such infectious diseases as typhoid, pneumonia, or influenza, often in patients who have never had venereal disease of any kind. If we have a focal infection from the gonococcus, it most frequently takes the form of arthritis.

The subject of focal infections is rapidly becoming far too broad to be dealt with adequately in a short space, and it is usually quite beyond the power of the average practitioner to keep abreast of all the new developments which such a subject continually offers. But in searching for the cause of any obscure internal condition, we shall be indeed neglectful if we fail to make a very thorough examination of all those parts where foci of infection are liable to be situated, or to consider the possibility that infective conditions may have been present for a long time without making enough disturbance to cause the patient to seek the help of his physician. Sometimes a man will go about for years with a mouth full of foul decaying teeth, yet apparently his health will be perfect, or an adolescent patient may show tonsils honeycombed with pus-containing cavities, and exhibit no symptoms whatever. But we must always bear in mind the fact that the strongest physique may be gradually undermined by the continual absorption of toxins, and the accidental introduction of some outside infection may increase the burden just enough to cause a complete breakdown.

And we must also remember that even when the infective focus has been found and removed, the evil effects of the toxins it has generated are by no means invariably eradicated with it, and that we must not relax our vigilance or dismiss the patient from our care until we have offered him every supportive measure we can marshal to his aid, and are assured that he will not suffer from some secondary focus, or that the conditions set up by the extirpated one are not too well established to be eradicated by any means at our command.

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CASE REPORT MERCUROCHROME INTRAVENOUSLY

Sterling P. Bond, M. D., Little Rock.

MRS.

Age 26; multipara; past illnesses, unimportant. Present illness began August 1923 with following of general malaise, pain in lumbar and abdominal regions; pain on voiding and irritation of genitalia. These symptoms progressively severe and accompanied pregnancy which began in June. (Pregnancy was terminated at eight months because of severity of symptoms; baby living). Patient has been in bed since November, 1923, with temperature as high as 106. Has seemed apparently improved at times, but worse for past five weeks; temperature ranging between 102 and 105. Medical treatment and bladder irrigations of no avail. Arrived at hospital; temperature 103.3; X-ray showed stag-horn calculus in right kidney. Cystoscopic examination revealed a bilateral pyelitis. Pus cells too numerous to count under microscope. Pelvic lavage of no avail.

March 9, 1924: 20 cc. of mercurochrome 220, one per cent, intravenously followed by rigor, slight diarrhea and temperature of 105. Temperature normal that afternoon. March 10th, temperature 99. Normal temperature, except March 14th, 99; March 17th, 99; March 19th, 100; March 20th, 101. At this time a nephrotomy was done, stones removed, kidney sutured and replaced and lumbar drain in wound. Temperature rose to 104. March 26th, temperature was normal and has been normal since that time. Patient left the hospital on the tenth day with no drainage from lumbar incision at any time.

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All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

A TIMELY AND VALUABLE CONTRIBUTION

On another page in this issue of the Journal will be found an excellent original paper contributed to the Journal by Dr. John E. Legge, of Cumberland, Maryland, entitled, "Focal Infection in Its Relation to Internal Medicine." It deserves and will repay careful reading and assimilation by every member of the profession. It has special reference to focal sepsis as a cause of disease in parts of the body remote from the original infection, and apparently unrelated thereto. It is only of late years that this origin of disease has been proven and promulgated. The physicians past middle age knew nothing in their student days, or in their earlier years of practice, of the relation a mouth infection may have on rheumatism, appendicitis, stomach trouble and even angina pectoris, or other heart affections, to focal infections in the mouth, the nostrils, the teeth, the tonsils, abscesses under the finger nails, or such other local infections. In the old days, they were treated only locally and their connection with graver disorders in remote parts of the body were not even suspected. It is in but comparatively recent years that pyorrhea, sending poisonous disease germs and toxins throughout the body and causing ailments anywhere from eyes to feet, was recognized as the cause of diseases which were treated as such with no thought of removing the first cause.

Dr. Legge recognizes the inestimable services rendered by Dr. H. D. Anderson of Ontario, Canada, in reporting numerous cases relative to the pathologic conditions originating from such local infections. Of 937 reports of cases he studied are included in the rheumatic group, arthritis, lumbago, sciatica and neuritis 166, or 27 per cent with local infections as the primary cause. The cardiovascular group numbered 115, or 20 per cent and so forth through a list of diseases thus caused and which, in earlier days, escaped the average diagnostician entirely as to primal cause. While the mouth, teeth, nose and tonsils bear the brunt, perhaps, as the first cause of such poisoning of the blood these apparently bear but very distant relation to the diseases in question; there are also pus accumulations in prostatitis which are the origi-

nating cause. Only recently in Little Rock, a patient who had been treated by almost every known remedy for rheumatism which affected his entire body, keeping him pain-racked for over a year, was found after examination of mouth, teeth tonsils and other parts to have a pus sack in the prostate gland, which was the primal origin of all his trouble.

It is expected that every reader of the Journal will carefully read the paper so it is unnecessary to further dwell upon it, except to call specific attention to the concluding warning that even if the infective focus has been found and removed, it does not follow that the evil effects of the toxins remote therefrom also are eradicated, so that the practitioner must not relax his vigilance until it is assured that no secondary focus will develop.

ALL ABOARD FOR FAYETTEVILLE

As far as the Journal is concerned this is, perforce, the last call to members to lay all other things aside and prepare to attend the annual meeting at Fayetteville, May 20-22. If you have not made up your mind yet, turn to the page in this issue of the Journal containing the complete program and take counsel of yourself whether you can afford to miss it. The question is not whether you can afford to go, but whether you can afford not to. For, to the progressive practitioner the cost of attending will be an investment—and a profitable one. There will be much to learn from the papers and addresses of the distinguished visitors who will be on hand. Through an inter-change of ideas, from learning of specific results from certain methods of treatment one can sometime learn from the humblest member of the profession. How much more is likely to be learned from those who have climbed to the top, or to a position near the top?

The program has been so arranged that all papers will be read in general session, so that all members may hear them and participate in the general discussion following each paper. Inasmuch as the program is given in full, it is not necessary here to repeat the names of the visitors who have consented to speak; but a casual reading of the program should convince every reader of its unusual merits.

Then, there is an appealing social program with special attention to the ladies accompan-

ing the members. There will be excellent hotel accommodations, and the homes of many of Fayetteville's best citizens will be thrown open to those who do not care to stop at hotels. There is a wonderful fruit belt around Fayetteville, splendid roads for automobile travel, the University is there and the city is the former home of the Arkansas Medical Society's first President, the late Dr. W. B. Welch. All these factors should combine to bring out the largest attendance in the history of the society. The schedule of trains also will be found with the program and members can lay their plans accordingly.

Personal and News Items.

Dr. Jas. E. Cox has moved from Smackover to Louann.

Dr. J. H. McCurry has moved from Grubbs to Cash.

Dr. T. N. Rodman has moved from Newark to Batesville.

"What troubles us most and peeves us is the conduct of the other fellows."

Drs. F. O. Mahoney of El Dorado and A. S. Gregg of Fayetteville, visited in Little Rock last month.

Dr. Joseph Balton of Chicago succeeds Dr. C. H. Waring as Superintendent of the U. S. Reservation at Hot Springs National Park.

Dr. Glen M. Holmes of Little Rock recently attended the clinics at Barnes Hospital, St. Louis.

Dr. W. L. Sadler of Little Rock is in Chicago taking a special course in diseases of the eye, ear, nose and throat.

Dr. John M. Proctor announces the removal of his office to suite 401-402 Dugan-Stuart Building, Hot Springs National Park.

Dr. M. G. Daly of Little Rock has returned from St. Louis, where he attended the clinics, giving special attention to the newer anesthesics.

Tentative plans are under way for the erection of a modern six story office building in Little Rock for the exclusive use of physicians and dentists.

Dr. Frances Sage Bradley, has resigned as Director of the Bureau of Child Hygiene of the State Board of Health and moved from Little Rock to Dobbs Ferry, N. Y.

Dr. William Holt, Epidemiologist, Arkansas State Board of Health, was recently elected Health Officer of the City of Little Rock succeeding Dr. John Thames who resigned to accept a similar position in West Virginia.

The Pettus Infirmary, Little Rock, has recently been remodeled. On the first floor Dr. A. F. Gray and Dr. G. D. Thompson have offices in addition to the private office of Dr. Pettus.

Dr. Paul Leo Mahoney has moved from the Hall Building to Suite 418-425, Exchange Bank Building. He will be associated with Drs. Caldwell and Hudson; Practice limited to eye, ear, nose and throat.

The Fayetteville meeting of the State Society, May 20-22, is going to be the biggest-peppiest medical convention ever held in this State. Don't be among the stay-at-homes, and be sorry for the rest of the year that you missed the event of your life. Be there!

ALUMNI WEEK

The University of Arkansas School of Medicine will hold a clinic week in honor of the Alumni during Commencement week, June 2-7. The work will include clinical lectures, laboratory demonstrations, ward walks in medicine and medical specialties, operative clinics in general surgery and the specialties. The instruction will be given at the Medical School and in the various hospitals. Numerous entertainment features will be provided for the visiting physicians. Licensed Arkansas practitioners will be admitted without charge. It is hoped to make the week of real service



Main Building of the University of Arkansas, Fayetteville.

to those who attend. If you plan to be present, notify Dr. Arthur R. Stover, Acting Dean, who will send you a detailed program.

Diploma Inquiry Continued.—The findings of the special grand jury which for five months has been investigating the fraudulent practice of medicine in Connecticut were presented to the superior court, March 14th. The grand jury condemned the Middlesex College of Medicine and Surgery, Boston; the St. Louis College of Physicians and Surgeons; the Kansas City College of Medicine and Surgery, and the College of Physicians and Surgeons, Boston. Concerning the St. Louis College of Physicians and Surgeons the grand jury said in part:

In regard to the Kansas City College of Medicine and Surgery the grand jury found that the paid teaching staff consists of two men who receive \$100 a month, and that it is owned and operated by Dr. Date R. Alexander. There has not been a faculty meeting since 1915 and the grand jury found conditions existing in the college almost unbelievable.

There were no persons connected with the college who had any knowledge of educational qualifications of the administering of an educational institution from the standpoint of efficiency. Diplomas are issued to applicants at a charge of approximately \$200 each. This dishonorable traffic in diplomas was freely admitted by the head of the school coupled with the statement that hereafter the price would be higher. The attorney general for the state ruled that licenses issued under these circumstances were invalid. The jury stated that a lawyer's mistake might cost his client some money; the court could invariably correct his blunders but the blunders of such "physicians" were irremediable. The jury had also found on examining some of these persons holding medical diplomas that they could not describe the first symptoms of diphtheria, scarlet fever, smallpox, or other contagious or infectious diseases. The grand jury has not completed its investigation by reason of the operation of the law regulating the practice of the healing arts; it has diplomas, certificates, letters, reports, records and oral testimony but it does not feel that the interests of public justice would be served by publication of the evidence of any of their exhibits at this time.—*J.A.M.A. Mar. 22-24.*

NEW GENERAL HOSPITAL

Eleventh and McAlmont Streets, Little Rock

Balmy, ideal weather conditions prevailed at the formal opening of The New General Hospital, Little Rock, Sunday afternoon, March 30th. Appropriate services were held in the City Park adjacent to the hospital. Mayor Ben Brickhouse presided. After the speaking the hospital and the nurses' home adjoining were thrown open for inspection and thousands filed through the buildings, admiring the equipment and housing facilities. Floral offerings from many friends were much in evidence and contributed largely to the cheerful and comfortable aspect.

The dedication program was opened with prayer by Rev. C. M. Reves, pastor of Winfield Memorial Church. The mayor reviewed briefly the inception and progress of the building program, the many difficulties encountered, financial and otherwise, and congratulated all who had contributed to the worthy cause, referred to the noble efforts of friends and voiced the gratitude of the city for the successful outcome.

Dr. W. F. Smith, Division Surgeon of the Missouri Pacific Railway Company, was the next speaker. He told of the great need in Arkansas for more and better hospital facilities. He gave figures to show the insufficient number of hospitals at present and stressed the urgency of the situation, the welfare of the State demanding better hospitalization.

Dr. Morgan Smith, former dean of the Medical School, University of Arkansas, followed with a brief reference to the struggle necessary to complete the hospital and congratulated the mayor on having "beat the surges under him" while persevering in the good work. "The morn is always brighter when the night has been long," said he. He insisted that merit, not politics, be considered in the personnel and management of the institution, and that it be operated always to aid the afflicted.

On behalf of the City of Little Rock, Alderman John Tuohey, who has been an active enthusiastic supporter of the hospital movement, declared that the new hospital was a monument to the progress of Little Rock; and asked that due credit be given to those who had assisted with their means and personal influence to further the good work. He spoke of the tablet in front of the old city hospital which carries the inscription: "For God and the Stranger Forever" and said that this sentiment had been the inspiration and guiding star of those who had contributed so nobly in making possible the magni-



New General Hospital, Located at Eleventh and McAlmont Streets Little Rock, Ark.

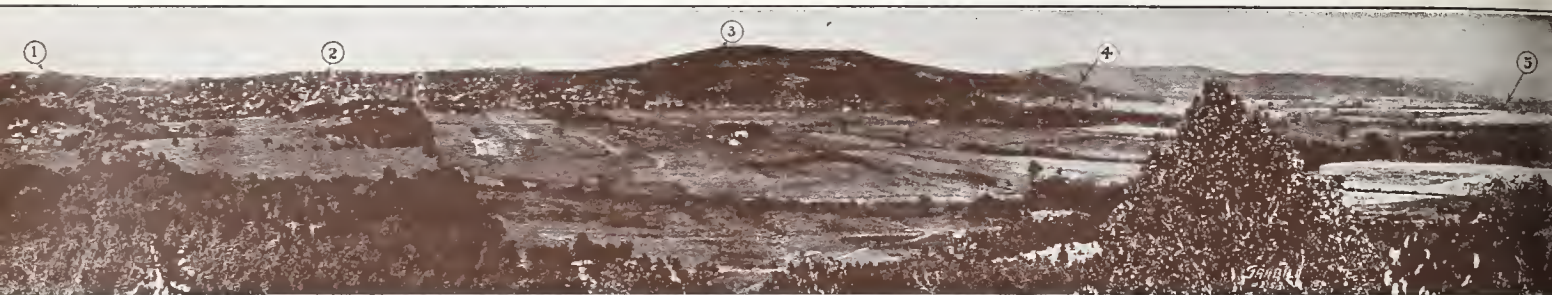
ficent, thoroughly equipped hospital now dedicated for service.

The exercises were closed with an address from Gov. McRae, who said he was glad to participate in this day of great rejoicing. He stressed the humanitarian feature of the project. "Since the World War," he said, "People have become accustomed to doing things on a large scale." To his own personal knowledge, he said, Arkansas stood in serious need of more hospitals and it was a matter for earnest consideration by all good citizens. He spoke in the highest terms of the Medical School and of the medical profession throughout our land, declaring that in achievements and service rendered and in making the world brighter and better it was second only to that of the ministry. He Congratulated the citizens of Little Rock on the architectural design and the modern equipment of the hospital and foretold for it a glorious future in the good work of healing the sick and afflicted unfortunates of our land.

The new hospital is the latest word as to facilities for taking care of patients, including laboratory, maternity ward and children's nursery. Operating and sterilizing rooms are on the fifth floor. The City Park on the opposite side of the street affords a delightful promenade quiet and open space for the ambulant patients.

The hospital staff consists of superintendent, 32 physicians; 17 nurses; three internes; X-ray technician; operating room supervisor; bacteriologist; pharmacist, and four graduate supervisors; four operating rooms; 150 beds; ice plant, laundry, etc. Private wards are provided for pay patients. At this writing the hospital is practically filled, only a few rooms on first floor being vacant.

The nurses' home in the same block is a two-story brick building with tile roof; modern in every respect affording every possible comfort for its occupants.



1. UNIVERSITY OF ARKANSAS. 2. CITY OF FAYETTEVILLE. 3. MOUNT SEQUOYAH. 4. "HAPPY HOLLOW FARM." 5. WHITE RIVER

ANNOUNCEMENTS AND PROGRAM

OF THE

FORTY-NINTH ANNUAL SESSION

OF THE

Arkansas Medical Society

Fayetteville, May 20, 21, 22, 1924

OFFICERS

President—W. T. Wootton, Hot Springs National Park.

First Vice-President—J. O. Rush, Forrest City.

Second Vice-President—J. C. Graves, Lockesburg.

Third Vice-President—S. J. Allbright, Searcy.

Secretary—William R. Bathurst, Little Rock.

Treasurer—Robert L. Saxon, Little Rock.

COUNCILORS AND COUNCILOR DISTRICTS

First District—Clay, Crittenden, Craighead, Greene, Lawrence, Mississippi, Poinsett and Randolph Counties. Councilor, Thad Cothorn, Jonesboro. Term of office expires 1925.

Second District—Cleburne, Fulton, Independence, Izard, Jackson, Sharp and White Counties. Councilor, J. L. Jones, Searcy. Term of office expires 1924.

Third District—Arkansas, Cross, Lee, Lonoke, Monroe, Phillips, Prairie, St. Francis and Woodruff Counties. Councilor, T. J. Stewart, Wynne. Term of office expires 1925.

Fourth District—Ashley, Bradley, Chicot, Cleveland, Drew, Desha, Jefferson and Lincoln Counties. Councilor, A. Isom, Dumas. Term of office expires 1924.

Fifth District—Calhoun, Columbia, Dallas, Lafayette, Ouachita and Union Counties. Councilor, F. E. Baker, Stamps. Term of office expires 1925.

Sixth District—Hempstead, Howard, Little River, Miller, Nevada, Pike, Polk and Sevier Counties. Councilor, Wm. Gibson, Nashville. Term of office expires 1924.

Seventh District—Clark, Garland, Grant, Hot Spring, Montgomery, Saline and Scott Counties. Councilor, Dewell Gann, Sr., Benton. Term of office expires 1925.

Eighth District—Conway, Faulkner, Johnson, Perry, Pope, Pulaski and Yell Counties. Councilor, G. L. Henderson, Conway. Term of office expires 1924.

Ninth District—Baxter, Boone, Carroll, Marion, Newton, Searcy, Stone and Van Buren Counties. Councilor, Leonidas Kirby, Harrison. Term of office expires 1925.

Tenth District—Benton, Crawford, Franklin, Logan, Madison, Sebastian and Washington Counties. Councilor, E. F. Ellis, Fayetteville. Term of office expires 1924.

Delegates to the A. M. A.—Dr. Geo. S. Brown, Conway (1924); Dr. Wm. R. Bathurst, Little Rock (1925).

COMMITTEES

SCIENTIFIC PROGRAM

John M. Proctor, Hot Springs, chairman; E. F. Ellis, Fayetteville; Wm. R. Bathurst, Little Rock.

SCIENTIFIC EXHIBIT

D. A. Rhinehart, Little Rock, chairman; E. C. Moulton, Fort Smith; H. T. Harr, Fayetteville.

MEDICAL LEGISLATION

Robert Caldwell, Little Rock, chairman; W. F. Smith, Little Rock; S. B. Hinkle, Little Rock; E. E. Barlow, Dermott; Thad Cothorn, Jonesboro; J. D. Southard, Fort Smith; R. L. Smith, Russellville; S. J. Hesterly, Prescott; E. D. McKnight, Brinkley; Wm. Breathwit, Pine Bluff; J. A. Bogart, Forrest City.

NECROLOGY

M. L. Norwood, Lockesburg, chairman; C. J. March, Fordyce; F. T. Murphy, Brinkley; W. B. Lawrence, Batesville.

HEALTH AND PUBLIC INSTRUCTION

C. W. Garrison, Little Rock, chairman; E. A. Purdom, Hot Springs; H. A. Ross, Arkadelphia; W. T. Wootton, Hot Springs (ex-officio); Wm. R. Bathurst, Little Rock (ex-officio).

CANCER RESEARCH

Dewell Gann, Jr., Little Rock, chairman; Wm. Breathwit, Pine Bluff; J. C. Hughes, Hoxie; O. H.

King, Hot Springs; Wm. R. Bathurst, Little Rock; Rufus Martin, Warren.

INFANT WELFARE

Morgan Smith, Little Rock, chairman; Noble D. McCormack, Fort Smith; Don Smith, Hope; A. R. Bradley, Morrilton.

WORKINGMAN'S COMPENSATION

J. M. Lemons, Pine Bluff, chairman; R. F. Darnall, Little Rock; W. G. Hodges, Malvern; J. S. Moore, Arkadelphia; L. D. Reagan, Little Rock; A. W. Strauss, Little Rock; B. C. Logan, Morrilton.

HOSPITALS

A. C. Shipp, Little Rock, chairman; R. C. Dorr, Batesville; John Stewart, Booneville; R. M. Blakely, Little Rock; H. H. Niehuss, El Dorado; C. S. Pettus, Little Rock.

STATE BOARD OF MEDICAL EXAMINERS OF THE ARKANSAS MEDICAL SOCIETY

Thad Cothorn, Jonesboro; J. T. Palmer, Pine Bluff; J. W. Walker, secretary, Fayetteville; J. C. Swindle, Walnut Ridge; Earle H. Hunt, Clarksville; H. A. Ross, Arkadelphia; W. H. Toland, Nashville.

ARKANSAS STATE BOARD OF HEALTH.

C. W. Garrison, Little Rock, State health officer; O. L. Williamson, Marianna; C. F. Crosby, Heber Springs; Leonidas Kirby, Harrison; H. R. Webster, Texarkana; H. L. Montgomery, Gravelly; S. A. Southall, Lonoke; F. O. Mahoney, El Dorado.

ANNOUNCEMENTS

The registration desk will be located in the corridor of the Washington Hotel. Ladies of the local committee will assist those desiring to register.

COMMERCIAL EXHIBIT

Promises to be of high grade, and will be found in the Washington Hotel.

SCIENTIFIC EXHIBIT

This exhibit will be conducted by the Committee on Scientific Exhibits, D. A. Rhinehart, chairman; E. C. Moulton, and H. T. Harr. Suitable space for this exhibit has been arranged, and our members are urged to attend and lend their encouragement to the committee's labors and assist in developing this attractive addition at our meetings.

REGISTRATION

It is important for all members on arriving to register at the secretary's desk and receive the official program and a badge.

NOTICE

All papers read at this meeting are the property of the Arkansas Medical Society, and as soon as read should be handed to the secretary.

The program will be crowded and the announced time of starting all sessions will be adhered to in every case.

HOUSE OF DELEGATES

First Meeting—Ozark Theater.

The regular annual meeting of the House of Delegates of the Arkansas Medical Society will be held on May 20, 1924, at 9:30 a. m.

W. T. WOOTTON, *President*.

WM. R. BATHURST, *Secretary*.

Meeting called to order by W. T. Wootton, president.

Appointment of the Credentials Committee and their report.

Calling roll of delegates.

Adoption of the minutes of the Forty-eighth Annual Meeting as published in the July issue of the Journal of the Arkansas Medical Society.

Appointment of Reference Committee.

President's address to the House of Delegates.

REPORT OF COMMITTEES

Scientific Program—John M. Proctor, chairman.

Scientific Exhibit—D. A. Rhinehart, chairman.

Medical Legislation—Robert Caldwell, chairman.

Necrology—M. L. Norwood, chairman.

Health and Public Instruction—C. W. Garrison, chairman.

Cancer Research—Dewell Gann, Jr., chairman.

Infant Welfare—Morgan Smith, chairman.

Workingman's Compensation—J. M. Lemons, chairman.

Hospitals—A. C. Shipp, chairman.

Arrangements and Entertainment—

Report of the Council—Thad Cothorn, chairman.

Report of the Delegates to the A. M. A.—Geo. S. Brown.

Report of the secretary.

Report of the treasurer.

Selection of the Nominating Committee.

Proposed changes in the Constitution and By-Laws of the Arkansas Medical Society to be voted on at this meeting:

An amendment to Article V, page 3, amending the Constitution by striking out the words following "ex-officio" and substituting therefor the words, "president, secretary and ex-presidents of this society; provided, however, that the ex-presidents shall not have the power of voting." That will make this change, that the ex-presidents of the society will have the privilege of membership in the House of Delegates, with the exception of voting.

Chapter I—Membership. Section 4. That a physician who has been a continuous member for a term of fifteen years, who is not less than sixty-five years of age, who is an honorary member of his county society, may have his name carried on the roster of the State society and receive its publications as an honorary member and be exempt from the payment of dues.

MEETING OF THE COUNCIL

The Council of the Arkansas Medical Society will meet at noon with luncheon at the Washington Hotel immediately following the adjournment of the morning session.

FORTY-NINTH ANNUAL MEETING

GENERAL SESSION

Ozark Theater.

Tuesday, May 20, 1924, 1:30 P. M.

Calling of the Society to order—W. T. Wootton, president.

Invocation—Rev. M. L. Gillespie.

Address of Welcome for Fayetteville—Hon. Vol Walker.

Address of Welcome for the Profession—Dr. A. I. Moore.

Response to the Addresses of Welcome on Behalf of the Arkansas Medical Society—Dr. E. E. Barlow, Dermott.

President's Annual Address—Dr. William Turnor Wootton, Hot Springs.

"Colon Physiology"—Dr. Jas. Case, Battle Creek, Michigan.

"Undescended Testicle, with Case Reports"—Dr. Frank B. Young, Gering Nebraska.

"The Existence of a Specific Vitamin for Reproduction"—Dr. Barrett Sure, University of Arkansas, Fayetteville.

"The Relation of Chemistry to Medicine"—Dr. Harrison Hale, University of Arkansas, Fayetteville.

"A Year's Experience with High Voltage X-Ray Therapy"—Dr. D. A. Rhinehart, Little Rock.

"Demonstration of the Uses of a New Instrument"—Dr. C. H. Cargile, Bentonville.

8:00 P. M.

President's Reception—Armory. Musical entertainment, under the direction of Prof. H. D. Tovey. Dancing.

Wednesday, May 21, 8:00 A. M.

Ozark Theater.

House of Delegates (unfinished business).

MEMORIAL SESSION

9:00 A. M.



Central Presbyterian Church

Where Memorial Services Will Be Held.

Conducted by the Committee on Necrology, M. L. Norwood, chairman; C. J. March, F. T. Murphy, W. B. Lawrence.

Organ Prelude.

Invocation.

DECEASED MEMBERS

Geo. W. Hart, Hindsville, April 12, 1923.

John McGinty, Fort Smith, May 27, 1923.

Arthur U. Williams, Hot Springs, May 21, 1923.

Oscar E. Jones, Newport, July 14, 1923.

John Luther Kelly, Hope, September 22, 1923.

Joseph L. Burns, Jonesboro, October 14, 1923.

John Franklin Sanders, Blytheville, Dec. 29, 1923.

Royal Walter Darr, Atkins, December 31, 1923.

Arthur C. Ellis, Hot Springs, February 23, 1924.

Warren Kelly, Benton, March 7, 1924.

(Members who know of the death of any member, notice of which has not appeared in the Journal, should immediately communicate the particulars to the State secretary or the chairman of the Committee on Necrology.)

GENERAL SESSION

Ozark Theater.

May 21, 10:00 A. M.

"Minor Points of Importance in Obstetrical Practice"—S. B. Hinkle, Little Rock.

"Vaginal Hysterectomy and Its Indications"—James Kennedy, The Jos. Price Hospital, Philadelphia.

"When and How to Operate in Diffused and General Peritonitis Following Appendicitis"—G. G. Altman, Helena.

"Some of the Things That Reduce Operative Mortality, Morbidity, and Disability"—J. P. Runyan, Little Rock.

"Report of Case of Cirrhosis of the Liver Complicated by Intestinal Tuberculosis with Obstructive Symptoms"—E. E. Barlow, Dermott.

"Malignant Bone Neoplasms" (Lantern Slides)—W. F. Smith, Little Rock.

"Prostatic Calculi"—J. A. Foltz, Fort Smith.

AFTERNOON SESSION

1:30 P. M.

Address, "Medical Organization as Exemplified by the American Medical Association and Its Constituent Societies"—William Allen Pusey, President-elect of the American Medical Association.

"The Prevention and Treatment of Surgical Infection"—A. E. Chace, Texarkana.

"Cholecystotomy vs. Cholecystectomy"—Dewell Gann, Jr.; Little Rock.

"What Modern Surgery May Expect and Promise"—C. S. Pettus, Little Rock.

"Report of Cases—Rare to Me"—R. C. Dorr, Batesville.

"The Doctor and the Hospital"—Chas. S. Holt, Fort Smith.

"Traumatism of the Kidneys"—W. R. Klingensmith, Fort Smith.

"The X-Ray in the Treatment of Pertussis: Some Observations of Clinical Cases"—Morgan Smith and A. C. Kirby, Little Rock.

PUBLIC SESSION

8:00 P. M.

To be conducted by the Committee on Health and Public Instruction, C. W. Garrison, chairman; E. A. Purdum, H. A. Ross, W. T. Wootton (ex-officio), Wm. R. Bathurst (ex-officio).

"Health Work Pays"—W. A. Evans, Editorial Department, Chicago Tribune, Chicago.

"What the Physician Should Stand for in His Community"—Thos. Douglass, Ozark.

GENERAL SESSION

Ozark Theater.

Thursday, May 22, 1924, 8:30 A. M.

"Treatment of Diabetes Mellitus"—A. A. Blair, Fort Smith.

"My Experience with Insulin"—Allen A. Gilbert, Fayetteville.

"The Law of Conditions Is as Positive as Is the Law of Gravitation"—D. C. Walt, Little Rock.

"The Parksonian Syndrome Following Lethargic Encephalitis"—George B. Fletcher, Hot Springs.

"Some of the More Common Endocrine Disturbances Associated with Heredo-Syphilis"—George M. Eckel, Hot Springs.

"The Indications for Suspension Laryngoscopy"—R. H. T. Mann, Texarkana.

"Rational Classification of Heart Rhythms"—W. D. Rose, Little Rock.

"The Influence of Focal Infections in Pulmonary Tuberculosis"—H. C. Dorsey, Fort Smith. Discussion opened by A. C. Shipp.

"Practical Cultures of Tubercle Bacilli for Clinical Use"—Mrs. Tommie Owens, Pathologist, Sparks Memorial Hospital, Fort Smith.

FINAL MEETING OF THE HOUSE OF DELEGATES

Ozark Theater.

Thursday, May 22d, 1:30 P. M.

Roll Call.

Report of Nominating Committee.

Election of officers—

President.

First Vice-President.

Second Vice-President.

Third Vice-President.

Secretary.

Treasurer.

Five Councilors.

Further new business.

Adjournment.

FINAL GENERAL SESSION

Ozark Theater.

(Thursday afternoon, May 22d, immediately after adjournment of the House of Delegates.)

Calling meeting to order by W. T. Wootton, president.

Report of Committees.

New business.

Selection of place of next meeting.

"Plea for Greater Research"—A. L. Best, Newport.

"A Simple and Reliable Test for Albumin in Urine"—C. J. March, Fordyce.

"Subject to be announced"—W. H. Mock, Prairie Grove.

"Report of Case"—H. A. Stroud, Jonesboro.

"Hematuria, a Study of Several Unique Cases"—J. W. Butts, Helena.

"Ureteral Obstruction"—W. R. Brooksher, Fort Smith.

"Morphin and Scopolamin Semi-Narcosis in Labor"—S. C. Grant, Mulberry.

"The Significance of Vertigo"—E. T. Ponder, Little Rock.

Adjournment *sine die*.

NOTICE TO MEMBERS

When you buy your railroad ticket to Fayetteville, secure a certificate or receipt for the cash paid. Leave this receipt at the Secretary's registration desk at the meeting, to be validated. If 250 certificates or receipts are validated, holders will be entitled to a reduced fare on return trip.

"To make the most of dull hours, to make the best of dull people, to like a poor jest better than none, to wear the threadbare coat like a gentleman, to be outvoted with a smile, to hitch your wagon to the old horse if no star is handy—that is wholesome philosophy."

Members of the Arkansas Medical Society who have not paid their dues are requested to do so at once, so that their names may be included in the annual report of the State Secretary.

Blue Mass (Massa Hydrargyri) is an old preparation that is not needed. Calomel will act as well.

Mercury should not be given except as a purge (calomel is the best preparation) and for the treatment for syphilis. Syphilis cannot be successfully treated without the use of mercury in some form.

ANNUAL HEALTH EDUCATION CONFERENCE

At the invitation of the Massachusetts Institute of Technology, a working conference in Health Education is to be held June 23-28, at Cambridge, Massachusetts. The conference called by the Health Education Division of the American Child Health Association will be limited to 100. Registration must be made in advance. Address Emma Dolfinger, 370 Seventh Avenue, New York City.

Train Schedules to Fayetteville
and Return.

We give below some train schedule figures, which we trust may be of assistance to our physicians in planning to visit our annual session. We have followed this with a map of lines reaching Fayetteville, for which we are indebted to the Passenger Department of the Frisco Lines, and of the Missouri Pacific Railway.

LOUISIANA AND ARKANSAS RY.

Lv. Stamps	1:45 p.m.
Ar. Hope	2:35 p.m.
Lv. Hope (Mo. Pac.)	3:30 p.m.
Ar. Little Rock	6:55 p.m.
Lv. Winnfield	6:25 a.m.
Lv. Ruston	8:25 a.m.
Lv. Junction City (R. 1.)	10:17 a.m.
Ar. Little Rock	6:30 p.m.

COTTON BELT RAILWAY

Lv. Texarkana	6:55 a.m.	12:06 p.m.	7:10 p.m.
Lv. Lewisville	7:52 a.m.	1:25 p.m.	8:25 p.m.
Lv. Stamps	8:07 a.m.	1:45 p.m.	8:40 p.m.
Lv. McNiel	8:45 a.m.	2:30 p.m.	9:21 p.m.
Lv. Camden	9:47 a.m.	3:53 p.m.	10:21 p.m.
Lv. Fordyce	11:01 a.m.	5:10 p.m.	11:38 p.m.
Ar. Pine Bluff	12:32 p.m.	6:55 p.m.	1:06 a.m.
Lv. Pine Bluff	12:32 p.m.		1:06 a.m.
Ar. Brinkley	3:53 p.m.		4:10 a.m.
Lv. Brinkley	6:23 p.m.		4:35 a.m.
Ar. Jonesboro	9:10 p.m.		7:35 a.m.

Lv. Campb'l, Mo.	4:50 p.m.
Lv. St. Francis	5:02 p.m.
Lv. Paragould	6:40 p.m.
Ar. Jonesboro	7:40 p.m.

RETURNING—

Lv. Little Rock (Cotton Belt)	8:15 a.m.
Ar. England	9:20 a.m.
Ar. Pine Bluff	10:50 a.m.

ROCK ISLAND LINES

Lv. Junct. City	10:17 a.m.
Lv. El Dorado	1:45 p.m.
Lv. Fordyce	3:40 p.m.
Lv. Benton	5:33 p.m.
Ar. Little Rock	6:30 p.m.

Lv. Memphis	9:30 a.m.	2:30 p.m.	11:59 p.m.
Lv. Forrest City	10:44 a.m.	3:50 p.m.	1:21 a.m.
Lv. Brinkley	11:20 a.m.	4:30 p.m.	2:02 a.m.
Ar. Little Rock	1:10 p.m.	6:30 p.m.	3:55 a.m.
Lv. Little Rock			4:05 a.m.
Lv. Booneville			8:20 a.m.
Ar. Mansfield			9:25 a.m.
Lv. Mansfield			10:00 a.m.
Ar. Fort Smith			11:30 a.m.
Lv. Fort Smith			12:01 p.m.
Ar. Fayetteville			3:05 p.m.

RETURNING—

Lv. Fayetteville	1:00 p.m.
Ar. Fort Smith	3:23 p.m.
Lv. Fort Smith	4:30 p.m.
Ar. Mansfield	5:58 p.m.
Lv. Mansfield (R. 1.)	6:30 p.m.
Ar. Little Rock	12:22 a.m.
Lv. Little Rock	12:32 a.m.
Lv. Brinkley	2:25 a.m.
Lv. Forrest City	3:20 a.m.
Ar. Memphis	5:30 a.m.

Lv. Little Rock (R. I.)	7:10 a.m.
Lv. Lonoke	7:55 a.m.
Lv. Brinkley	9:30 a.m.
Lv. Forrest City	10:27 a.m.
Ar. Memphis	12:30 p.m.

Lv. Little Rock (R. I.)	11:45 a.m.
Lv. Brinkley	1:27 p.m.
Lv. Forrest City	2:05 p.m.
Ar. Memphis	3:45 p.m.

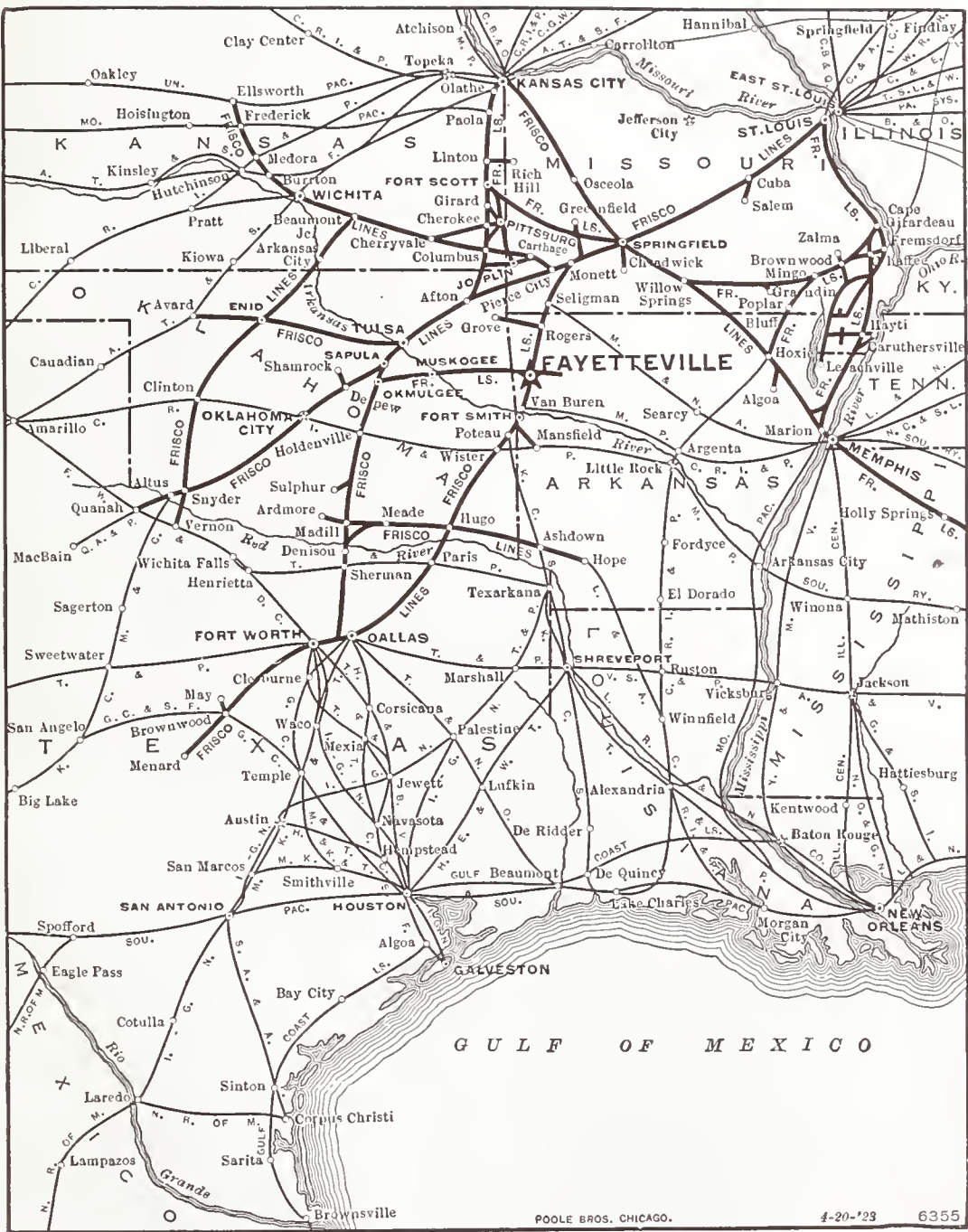
FRISCO LINES

Lv. Memphis	7:50 p.m.
Lv. Jonesboro	9:30 p.m.
Lv. Hoxie	10:07 p.m.
Ar. Springfield	3:40 a.m.
Lv. Springfield	3:55 p.m.
Ar. Fayetteville	7:47 a.m.

Lv. Ashdown	1:40 p.m.
Ar. Hope	3:50 p.m.

Lv. Oklahoma City	11:45 p.m.
Ar. Sapulpa	3:45 a.m.
Lv. Sapulpa	4:05 a.m.
Lv. Okmulgee	5:25 a.m.
Lv. Muskogee	8:00 a.m.
Lv. Port Gibson	8:24 a.m.
Lv. Tahlequah	9:32 a.m.
Ar. Fayetteville	12:40 p.m.

MAP OF FRISCO LINES



Annual Meeting, Fayetteville, May 20-22, 1924.

Lv. Tulsa	7:10 a.m.	12:40 a.m.
Lv. Sapulpa	8:00 a.m.	1:20 a.m.
Lv. Okmulgee	9:45 a.m.	5:25 a.m.
Lv. Muskogee	2:30 p.m.	8:00 a.m.
Lv. Tahlequah	4:10 p.m.	9:32 a.m.
Ar. Fayetteville	7:15 p.m.	12:40 p.m.
Lv. Dallas, Texas (Frisco)	9:10 a.m.	7:00 p.m.
Lv. Paris	1:02 p.m.	11:20 p.m.
Lv. Hugo	2:00 p.m.	12:15 a.m.
Lv. Antlers	2:28 p.m.	12:46 p.m.
Lv. Talihini	4:00 p.m.	2:45 a.m.
Lv. Wister	4:52 p.m.	3:47 a.m.
Lv. Poteau	5:05 p.m.	4:04 a.m.
Lv. Fort Smith	6:13 p.m.	5:15 p.m.
Ar. Fayetteville	8:38 p.m.	8:03 a.m.

RETURNING—

Lv. Fayetteville ..	1:00 p.m.	9:03 p.m.	7:47 a.m.
Ar. Ft. Smith	3:50 p.m.	11:20 p.m.	10:00 a.m.
Lv. Ft. S., Frisco ..	4:20 p.m.	11:30 p.m.	10:12 a.m.
Lv. Poteau	5:35 p.m.	12:26 a.m.	11:06 a.m.
Lv. Wister	5:53 p.m.	12:47 a.m.	11:23 a.m.
Lv. Hugo	9:50 p.m.	4:30 a.m.	2:55 p.m.
Ar. Paris	10:45 p.m.	5:25 a.m.	3:35 p.m.
Ar. Dallas		9:30 a.m.	7:30 p.m.

Lv. Fayetteville	3:05 p.m.
Ar. Springfield	8:50 p.m.

Lv. Springfield	11:59 p.m.
Lv. Hoxie	5:25 a.m.
Lv. Jonesboro	6:05 a.m.
Ar. Memphis	7:45 a.m.

Lv. Springfield	11:05 p.m.
Ar. Kansas City	7:15 a.m.

KANSAS CITY SOUTHERN RAILWAY

Lv. Texarkana (K. C. S.)	12:05 p.m.	10:25 p.m.
Lv. Ashdown	12:40 p.m.	11:07 p.m.
Lv. DeQueen	2:05 p.m.	12:20 a.m.
Lv. Mena	4:12 p.m.	2:27 a.m.
Lv. Heavener	9:00 a.m.	6:00 p.m.
Lv. Howe	9:15 a.m.	6:11 p.m.
Ar. Ft. Smith	10:50 a.m.	8:00 p.m.
Lv. Ft. Smith	12:01 p.m.	5:15 a.m.
Ar. Fayetteville ..	3:05 p.m.	8:03 a.m.

RETURNING—

Lv. Ft. S., K.C.S. ..	4:05 p.m.	11:45 p.m.	10:20 a.m.
Lv. Heavener	5:50 p.m.	1:50 a.m.	12:45 p.m.
Lv. Mena		3:25 a.m.	2:11 p.m.
Lv. DeQueen		5:25 a.m.	4:10 p.m.
Lv. Ashdown		6:37 a.m.	5:25 p.m.
Ar. Texarkana		7:20 a.m.	6:10 p.m.

MISSOURI PACIFIC LINES

Lv. Hoxie	4:10 p.m.	3:58 a.m.
Lv. Newport	5:05 p.m.	5:08 a.m.
Lv. Kensett	6:00 p.m.	6:00 a.m.
Ar. Little Rock	7:15 p.m.	7:20 a.m.
Lv. Little Rock	9:20 p.m.	9:25 a.m.
Ar. Fayetteville	8:03 a.m.	8:38 p.m.

Lv. Texarkana	4:30 a.m.	4:45 p.m.
Lv. Hope	5:25 a.m.	5:40 p.m.
Lv. Benton	8:05 a.m.	8:25 p.m.
Ar. Little Rock	8:55 a.m.	9:05 p.m.

Lv. Memphis	1:50 p.m.
Lv. Wynne	3:35 p.m.
Lv. Fair Oaks	3:58 p.m.
Lv. Bald Knob	5:15 p.m.
Ar. Little Rock	6:55 p.m.

Lv. Hot Springs	3:30 p.m.	7:10 a.m.
Lv. Hot Springs	5:30 p.m.	7:10 a.m.

Lv. Collinston	7:50 a.m.
Lv. Bastrop	8:10 a.m.
Lv. Felsenthal	9:30 a.m.
Lv. El Dorado	2:50 p.m.
Lv. Camden	4:28 p.m.
Lv. Gurdon	6:40 p.m.
Ar. Little Rock	9:05 p.m.

Lv. Collinston	11:45 a.m.
Lv. Montrose	1:30 p.m.
Lv. Dermott	2:10 p.m.
Lv. McGehee	2:45 p.m.
Lv. Gould	3:47 p.m.
Lv. Pine Bluff	5:05 p.m.
Ar. Little Rock	6:45 p.m.

RETURNING—

Lv. Little Rock	7:45 a.m.
Lv. Gurdon	10:55 a.m.
Lv. Camden	12:25 p.m.
Lv. El Dorado	3:45 p.m.
Lv. Felsenthal	5:20 p.m.
Lv. Bastrop	6:45 p.m.
Ar. Collinston	7:10 p.m.

Lv. Little Rock	9:00 a.m.
Lv. Pine Bluff	10:45 a.m.
Lv. Gould	12:01 p.m.
Lv. McGehee	1:20 p.m.
Lv. Dermott	1:40 p.m.
Lv. Montrose	2:25 p.m.
Ar. Collinston	4:20 p.m.

Lv. Fayetteville	9:03 p.m.
Ar. Van Buren	10:44 p.m.
Lv. Van Buren (Mo. Pac)	11:45 p.m.
Ar. Little Rock	7:00 a.m.
Lv. Little Rock (Mo. Pac.)	8:05 a.m.
Ar. Hot Springs	10:20 a.m.

Lv. Little Rock	7:00 a.m.	9:15 a.m.
Lv. Kensett	8:48 a.m.	
Lv. Bald Knob	9:10 a.m.	
Lv. Newport	10:15 a.m.	11:30 a.m.
Ar. Hoxie	11:40 a.m.	12:32 p.m.

Lv. Little Rock	7:45 a.m.
Lv. Benton	8:25 a.m.
Lv. Prescott	10:55 a.m.
Lv. Hope	11:25 a.m.
Ar. Texarkana	12:25 p.m.

Lv. Little Rock	9:30 a.m.
Lv. Kensett	10:53 a.m.
Lv. Bald Knob	11:15 a.m.
Lv. Fair Oaks	12:24 p.m.
Lv. Wynne	1:15 p.m.
Ar. Memphis	3:15 p.m.

The Missouri Pacific will operate one or more sleepers on the night trains between Little Rock and Fayetteville. Pullman fare: Lower, \$3.75; upper, \$3.00; stateroom, \$13.50. To secure reservations, write or wire in advance C. K. Bothwell, General Passenger Agent, Little Rock, giving dated wanted, etc.

Map Showing Mo. Pac. Railroad



ALL ABOARD FOR FAYETTEVILLE
Annual Session
ARKANSAS MEDICAL SOCIETY
May 20, 21, 22, 1924

County Societies.

JACKSON COUNTY

(Reported by M. L. Harris, Secretary)

The quarterly meeting of the Jackson County Medical Society was held in Newport, March 12, 1924. Present: Stephens, Watson, Erwin, Best, Gray, Elton, George and McCurry.

The following officers were elected: President, K. K. Stallings; Vice-President, J. T. Matthews; Secretary-Treasurer, M. L. Harris; Delegate, Walker E. Stallings.

CRAWFORD COUNTY

(Reported by J. A. Wigley, Secretary.)

The Crawford County Medical Society met in Van Buren, March 27, 1924.

Members present: S. C. Grant, O. M. Bourland, J. A. Wigley, M. S. Dibrell, J. E. Blakemore, W. L. Parchman, Lucas Giles, S. D. Kirkland, J. B. Trice, W. R. Reeves, and Q. R. Galloway.

Visitors: Drs. Carruthers and Hoge, Little Rock; St. Cloud Cooper, Moulton; W. R. Brooksher, Dorsey, Parks, Wilson, Harvey, Taylor, Blackburn, Buckley, Gardner, Little, Rose, and Sims, Fort Smith; Douglass and Porter, Ozark; Post, Altus.

Dr. Carruthers read a paper entitled "clinical Observations of Bone and Joint Diseases," with slide demonstrations.

Dr. Hoge gave a lecture on Pathology of Malignant Tumors, demonstrated with lantern slides.

After the meeting adjourned a luncheon was tendered by the ladies of the Presbyterian church. A number of interesting talks followed and every one left with a better feeling for his brother physician on account of this pleasant association.

Book Reviews.

Principles of Vital Statistics—By I. S. Falk, Ph. D., Department of Public Health, Yale University. Octavo of 258 pages, illustrated. Published by W. B. Saunders Company, Philadelphia. 1923. Cloth, \$2.50 net.

This little volume owes its inception to a course of lectures in vital statistics given by the New Haven Visiting Nurse Association in co-operation with Yale University.

A Manual of The Practice of Medicine—By A. A. Stevens, M. D., Professor of Applied Therapeutics in the University of Pennsylvania.

Eleventh Edition, entirely reset. 12mo of 645 pages, illustrated. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth, \$3.50 net.

The demand for another edition of this book speaks for itself as to its popularity. Many sections have been entirely rewritten and many new articles have been added.

The Examination of Patients—By Nellis B. Foster, M. D., Associate Physician to the New York Hospital; Associate Professor of Medicine at Cornell University, College of Medicine. Octavo of 253 pages, illustrated. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth, \$3.50 net.

The examination of patients and reaching a diagnosis is a science and an art; This book teaches the mode of collecting the facts and the method of using facts secured.

Social Control of the Feeble-minded—A study of social programs and attitudes in relation to the problems of Mental Deficiency. By Stanley P. Davies, Ph. D., Executive Secretary, Committee on Mental Hygiene New York State Charities Aid Association. Published by the National Committee for Mental Hygiene, 307 Seventh Ave., New York City. Price \$1.25.

This book gives a clear and adequate statement of present views on the subject of mental deficiency.

Applied Pathology in Diseases of the Nose Throat, and Ear—By Joseph C. Beck, M. D., F. A. C. S., Chicago. With 268 original illustrations, including 4 color plates. Published by C. V. Mosby Company, St. Louis, Mo. Price, \$7.50.

This book gives exclusively the author's personal experiences. It is a presentation of unusual merit and offers rational bases for treatment, exclusive of the strictly surgical interventions.

A Primer For Diabetic Patients—A brief outline of Diabetic Treatment, including directions for the use of Insulin, sample Menus, Recipes and Food Tables. By Russell M. Wilder, M. D. Mary A. Foley, and Daisy Ellithorpe, Dieticians, the Mayo Clinic. Second Edition, Reset. 12mo of 119 pages. Philadelphia and London: Published by W. B. Saunders Company, 1923. Cloth, \$1.50 net.

This small book gives a brief outline of the principles underlying the dietary treatment of diabetes. We entirely agree with the author that the education of the patient is essential to successful treatment.

The Tonsils—Faucial, Lingual, and Pharyngeal. With some account of the posterior and lateral pharyngeal nodules. By Harry A. Barnes, M. D.

Boston, Mass. Illustrated. Published by C. V. Mosby Company, St. Louis, Mo. Price \$5.00

This book represents the second edition of Dr. Barnes' work. Much has been added to the sections on operations, their sequelae and complications. The subject matter is presented in a concise form, giving the facts concerning the lymphoid tissues of the throat, and to make these facts the basis of any theories advanced.

Physical Examination and Diagnostic Anatomy.—By Charles B. Slade, M. D., formerly Chief of Clinic in General Medicine, University and Bellevue Medical School. Third Edition, thoroughly revised. 12mo of 179 pages illustrated. Published by W. B. Saunders Company, Philadelphia. Cloth \$2.00 net.

This book is particularly recommended to prepare students for the study of any of the various able and comprehensive works already written upon Physical Diagnosis.

In this new edition the author has added a few new paragraphs upon "Physics of Sound," and a new section on "Blood Pressure and the Sphygmomanometer."

Gynecology.—By William P. Graves, M. D., Professor of Gynecology at Harvard Medical School. Third Edition, thoroughly revised. Octavo volume of 936 pages with 388 half-tone and pen engravings and 146 microscopic drawings, 103 of the illustrations in colors. Published by W. B. Saunders Company, Philadelphia. 1923. Cloth, \$9.00 net.

This is a complete text-book and general reference book of gynecology. Part one, deals with the physiology of the pelvic organs; Part two, includes a description of those diseases which are essentially gynecologic, and part three, is devoted to the technic of gynecologic surgery.

A Text-Book of Anatomy and Physiology.—By Jesse F. William, M. D., Professor of Physical Education, Teachers' College, Columbia University, New York City: 12 mo of 523 pages with 369 illustrations. Published by W. B. Saunders Company, Philadelphia, 1923. Cloth, \$3.00 net.

In this book is found the essential data concerning the structure and function of the human body in an orderly and logical sequence.

The source of the aim that makes this book the most helpful is shown in four factors: Arrangement; Teaching helps; Emphasis, and Illustrations.

Clinical Diagnosis.—By Laboratory Methods. A Working Manual of Clinical Pathology. By James Campbell Todd, M. D., Professor of Clinical

Pathology, University of Colorado. Fifth Edition, enlarged and reset. Octavo of 762 pages with 325 illustrations 29 in colors. Published by W. B. Saunders Company, Philadelphia. Cloth, \$6.00 net.

In this new edition each chapter has been carefully revised in the light of the recent advances in this line of work. New sections are shown upon Rosenthal's application of phenoltetrachlorophthalein test for liver function, the flocculation test for syphilis, and many other new subjects.

Tonsillectomy.—By means of the Alveolar Eminence of the Mandible and a Guillotine. With a review of the collateral issues. By Greenfield Sluder, M. D., St. Louis, Mo. Ninety illustrations. Published by C. V. Mosby Company, St. Louis, Mo. Price \$5.00

This book presents Dr. Sluder's technic in tonsillectomy, describes the guillotine, the operative procedures and modifications. In addition a chapter is given by Dr. I. D. Kelley, Jr. on "Adenoidectomy with direct Vision," and a chapter by Dr. Arthur W. Proetz on "Physiology and General Pathology of the Tonsil."

Blood Chemistry Colorimetric Methods.—For the General Practitioner, with Clinical Comments and Dietary Suggestions. By Willard J. Stone, M. D. Introduction by George Dock. Published by Paul Hoeber, Inc., 67-69 East Fifty-ninth Street, New York. Price, \$2.25.

This book will be of interest to those wishing to study the chemistry of the more common blood constituents affected by impaired function. The author includes an outline of the essential facts to be determined in the study of impaired kidney function, together with dietary suggestions covering the treatment of certain disturbed metabolic states.

Exercises for Health and Correction.—By Frank D. Dickson, M. D., and Rex L. Diveley, M. D. First edition, Volume 1, 12mo, 112 illustrations, 127 pages, diagrams and maps. Published by J. B. Lippincott Company, Philadelphia. Price \$2.00

This book has been prepared for those who wish a scientific, progressive series of exercises which may be applied effectively for health and correction. It can be used as a complete course, or selections may be made to suit particular cases. This manual is of the greatest value to physical directors, doctors, nurses and the general public. Those who wish to correct in themselves faults of bodily health will find it a sure guide. The numerous illustrations show practically every movement of every exercise.

NATIONAL HEALTH SERIES—

Cancer—Nature, Diagnosis, and Cure. By Francis Carter Wood, M. D., Director, Institute for Cancer Research, Columbia University.

Man and the Microbe—How Communicable Diseases are Controlled. By C. E. A. Winslow, Dr. P. H.; Professor of Public Health, Yale School of Medicine.

Community Health—How to obtain and preserve it. By D. B. Armstrong, M. D., Executive Officer of the National Health Council.

The Baby's Health—By Richard A. Bolt, M. D., Gr. P. H., Director, Medical Service, American Child Health Association.

Personal Hygiene—The rules for right living. By Allan J. McLaughlin, M. D., Surgeon United States Public Health Service.

Each volume consists of 16mo, full flexible Fabrikoid. Average number of words per volume, 18,000. Price per volume, 30 cents. Complete set of 20 volumes (ready about May 1, 1924) \$6.00. Published by Funk and Wagnalls Company, New York.

Each of the five present volumes covers a subject of vital importance to the general public. To our knowledge, no books of a similar nature have ever appeared that have made the nature of the diseases, their prevention, and their cure so clear to the layman.

Cerebrospinal Fluid—In Health and in Disease. By Abraham Levinson, M. D., Chicago. Foreword by Ludvig Hektoen, M. D. With Seventy-nine illustrations, including five color plates. Second edition. Published by C. V. Mosby Company, St. Louis, Mo., Price \$5.00.

On the first page of this book we find the author has respectfully dedicated this volume:

“To him to Whom the practice of Medicine Constitutes an Ideal Rather Than a Profession.”

“To Him Who Combines Clinical insight and Scientific Research.”

“To Him Who Sees in Medicine Both a Science and a Philosophy.”

In this book will be found a full discussion of the cerebrospinal fluid in its various phases. The nature of the fluid in its normal state and the deviations in processes of disease. The author incorporates the results of his clinical and experimental studies as well as the observations of the many workers who have added to our knowledge by their researches on cerebrospinal fluid.

Epidemiology and Public Health—A text and reference book for physicians, medical students and health workers. In three volumes. By Victor C. Vaughan, M. D. LL. D. Emeritus Professor of Hygiene in the University of Michigan, Assisted by Henry F. Vaughan, Commissioner of Health of the City of Detroit and George T.

Palmer, Epidemiologist for the Department of Health of the City of Detroit. Volume II. Published by C. V. Mosby Company, St. Louis, Mo. Price, \$9.00.

The diseases discussed in this volume, roughly classified as follows: Nutritional Disorders, Alimentary Infections, and percutaneous Infections. Dr. Vaughan says, “The infecting organism in the food may continue to grow and multiply in the animal body or it may, outside the body, produce a toxin to which all deleterious effects are due. There is a tendency at present to attribute all forms of food poisoning to the bacillus botulinus. This is certainly an error. There can be no doubt that there are many bacteria in the colon-typhoid group, including the paratyphoids, which may so alter foods outside the body that speedy effects follow eating, or, in other cases, a real infection may develop. Food poisoning due to putrefactive changes in the food before this is taken into the body is now very rare compared with what it was thirty or forty years ago. This is due to the greater care given to the preparation and care of food. Especially is this true of milk and milk products.

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THE JOURNAL

OF THE

Arkansas Medical Society

PUBLISHED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XX.

LITTLE ROCK, ARK., MAY, 1924

No. 12

Original Articles.

THE USE OF TINCTURE OF IODINE IN THE TREATMENT OF MALARIA AND SYPHILIS

J. C. Cunningham, M. D., Little Rock

Some fourteen years ago, I was attending a case of malaria in which the patient was suffering from extreme nausea and, in order to relieve the nausea. I gave him tincture of iodine on sugar, I noticed that the fever went down and the patient missed his chill. This patient was so nauseated that quinine was out of the question and we were not giving it intravenously in those days.

Sometime afterwards, I was called to see a patient suffering from chronic malaria, who had an idiosyncrasy for quinine, even the smallest dose producing a severe nettle rash. I put this patient on tincture of iodine and she cleared rapidly. This case was particularly interesting because she had lived on a plantation near Pine Bluff and had not been free of malaria in fifteen years. She had been able to hold the malaria down to a certain extent by taking Fowler's solution of arsenic. After taking the iodine, repeated examinations of her blood failed to show any malaria.

In the last few years I have treated several hundred cases of malaria with cure in every case where the patient has stuck to the treatment. Below I have taken twenty cases at random in order to show the average length of time over which treatment was given:

NAME	AGE	LABORATORY EXAMINATION POSITIVE	LABORATORY EXAMINATION NEGATIVE
Mrs. E. E. B.....	40	8-22-23	11-3-23
C. B.....	9	3-13-22	6-10-22
A. M. B. Jr.....	10	11-17-23	2-12-24
Mr. T. H. B.....	44	10-13-23	12-6-23
Mrs. A. B.....	38	5-5-23	7-12-23
D. B.....	12	7-10-23	9-25-23
J. B. Jr.....	3	11-19-23	2-10-24
Mrs. C.....	60	11-22-23	1-8-24
Mrs. J. W. C.....	39	6-9-23	8-15-23
Mrs. D.....	26	11-28-23	2-10-24
Mrs. I. D. *.....	48	8-20-23	12-22-23
M. H. *.....	9	8-21-23	12-27-23
E. H.....	26	1-10-23	4-10-23
O. H.....	30	11-30-23	3-15-24
Mrs. M.....	24	9-3-23	11-17-23
Mrs. F. P.....	36	5-20-22	9-22-23
Mr. F. P. *.....	38	6-21-23	4-24-23
Mr. W. R. P.....	42	6-21-22	10-6-22
Mrs. J. P.....	40	10-15-23	1-8-24
R. V.....	16	7-11-23	1-25-23

*Cases where treatment discontinued on account of acute illness or other reasons and are not included in the average.

Average period of treatment 2 7-8 months.

I did not know what effect the continuous use of iodine over any considerable period of time would have on the kidneys or other organs, nor did I know the maximum dose I could use; for that reason I was afraid to increase the doses to any extent or keep up treatment over too long a period at a time. Had I not been afraid of some bad effects

from the iodine, my earlier results would have been better.

At first the patients seemed to be afraid of the drug and when I tried to write prescriptions for it, the druggist either called back or had considerable to say to the patient, all of which interfered with the results or prolonged the time of treatment.

Some three years ago, I had a colored patient who was suffering from malaria and also had a 4x positive Wassermann and it occurred to me that if I could give him iodine intravenously that I would be helping both conditions at the same time. I began giving him small doses diluted with sterile water. His malaria cleared very readily and just to see what I could do with syphilis, I continued the iodine gradually increasing the doses. I examined the urine frequently and saw no bad effects. This patient had had fifteen doses of salvarsan and a tremendous amount of mixed treatment, but on the iodine I was able to get a negative Wassermann in a little over three months.

I was not exactly sure of the action or the effect of the iodine nor of the toxicity, so I asked Dr. Pemberton to work this out for me in the Physiological Laboratory, School of Medicine, University of Arkansas, Little Rock.

All of these experiments which I quote were made by using the pure drug intravenously on the dogs. In this we found that it took 5-10 grams or 7 1-2 grains of the pure drug to prove fatal to a 12 Kilo dog or a dog weighing 25 pounds, the tincture of iodine containing 7 per cent of the drug; therefore, it would take 7 c. c. of the tincture to equal 5-10 grams or 7 1-2 grains of the pure drug. In other words, it would take 7 c. c. of the tincture to prove fatal to a dog weighing 25 pounds, but the tincture, in order to be stable, contains 5 per cent of kali iodine. Consequently the dose of the tincture should be proportionately less than that of the drug and would be approximately that for a therapeutic intravenous dose of kali iodine.

Reasoning from the above, the same dose for 150-pound man would require three grams or forty-five grains of the pure drug to produce death, and, as I have only used as high as 40 min. at a dose to get my results, it can be readily seen that an effective dose could be much larger and still remain far below the danger line.

The symptoms from the fatal intravenous dose of the pure drug were profound depression, bloody urine, dyspnea, exhaustion and death, also pulmonary edema and paralysis of respiration. On post-mortem we found pronounced renal congestion with bloody exudates into the lobules, pulmonary edema with bloody exudates into the pleura.

I have treated fifteen cases of syphilis by giving the tincture of iodine intravenously and I was able to bring all but three of them to a negative Wassermann in an average of 3.6 months. The three cases mentioned did not remain with me for complete treatment. All but two of the cases had had salvarsan and mixed treatment.

I found that the intravenous injection of the iodine does not clear the eruption quickly like salvarsan and that it seems to act better in old cases than in the acute ones.

From the above results it can be seen that we have in the use of iodine either intravenously or by mouth, practically a specific for malaria and at least a valuable adjunct for the treatment of syphilis.

The 49th annual meeting of the Arkansas Medical Society held in Fayetteville, May 20-22, closed as we go to press for this issue.

The following officers were elected for the ensuing year:

President, H. Moulton, Fort Smith.

First Vice-President, H. D. Wood, Fayetteville.

Second Vice-President, S. J. Hesterly, Prescott.

Third Vice-President, L. T. Evans, Batesville.

Treasurer, R. L. Saxon, Little Rock. (re-elected).

Secretary, W. R. Bathurst, Little Rock, (re-elected).

New Councilors:

J. L. Jones Searcy. (re-elected).

G. D. Henderson, Conway. (re-elected).

E. F. Ellis, Fayetteville. (re-elected).

H. T. Smith, McGehee.

B. C. Middleton, Texarkana.

Further announcement of meeting will be given in the June issue.

THE JOURNAL

OF THE

Arkansas Medical Society

Owned by the Arkansas Medical Society and published under the direction of the Council.

WILLIAM R. BATHURST, SECRETARY-EDITOR
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Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized August 1, 1918.

The advertising policy of this Journal is governed by the rules of the Council on Pharmacy and Chemistry of the American Medical Association.

All communications of this Journal must be made to it exclusively. Communications and items of general interest to the profession are invited from all over the state. Notice of deaths, removals from the state, changes of location, etc., are requested.

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Editorials.

HIGH HONORS TO ARKANSAS PHYSICIAN

The United States will be represented by two physicians at the League of Nations International Health Conference at the Hague, which convenes on June 1st. The South furnishes both delegates and Arkansas furnishes one of the two in Dr. Charles W. Garrison, State Health Officer, Little Rock. This indeed is "putting Arkansas on the map" when it serves one of only two delegates to be named in all the United States. It is especially an honor when it is considered how many physicians and sanitarians of high standing there are throughout the country. Nor is this appointment the only honor bestowed upon Dr. Garrison. At the close of the health conference at the Hague, Dr. Garrison will proceed to Liverpool where he will be the representative of the United States at the Royal Sanitary Institute, which will be attended by about one thousand delegates. The program includes a tour of Denmark and the Netherlands for special study of the dairy industry and its relation to the public health. The control of tuberculosis and other communicable diseases, child welfare, sanitation, sewerage disposal and water purification are among the many other subjects to be investigated.

The League of Nations will pay all the expenses of the delegates to the Hague Conference which will be in session about six weeks. Dr. Garrison, with his fellow delegate, Dr. T. F. Abercrombie, State Health Officer of Georgia, sailed on May 17, on the White Star Liner, *Majestic*. Dr. Garrison carries with him the congratulations of his brothers in the profession and, we are sure, of the people of his State generally. The Journal bids him "bon voyage," a pleasant and educational sojourn abroad and a safe return.

JUNIOR LEAGUE WELFARE STATION

So unobtrusively is their good work done that very many people in Little Rock are not aware of the splendid service being rendered by the Junior League in its Welfare Station for poor babies. And it appears that some physicians have an erroneous idea of its workings. The nurse, aided by the motor corps, visits, on an average, four families

each morning. If there are babies in need of medical attention, babies apparently under-nourished, or requiring examination, in the nurse's opinion, the parents are invited to take the child to the welfare station at the old arsenal in the city park. Local physicians are giving their services free three days each week to examine these babies. If it is found that they need treatment, the mother is advised to take the child to her family doctor. If the parents are unable to pay a physician, the mother is advised to take the child to the free clinic. No clinic is conducted at the Welfare Station. The examining doctors, after diagnosing cases, suggest taking the child to the family physician, and only in cases where the parents are indigent are they sent to the free clinic. Thus, the Welfare Station finds patients for the local physicians in many instances. Where there is under-nourishment due to poverty of the parents, free milk is provided and free bed linen to expectant mothers for the time of their confinement. Also free clothing frequently is furnished to poor children.

This work of the Junior League of Little Rock is most heartily to be commended and is an example which other communities well might follow.

Abstracts.

FURTHER NOTES ON THE TREATMENT OF PERTUSSIS BY THE ROENTGEN RAY

Henry I. Bowditch, Boston (*Journal A. M. A.*, May 3, 1924), presents for discussion the results of treatment with the roentgen ray of 300 cases of whooping cough by the medical staff of the Boston Floating Hospital. The clinical course of the disease under treatment seemed to be modified very definitely. Within a few hours (about eight) after the first treatment, the patient experienced a feeling of relief. The symptoms were reduced in severity and duration. At the end of twenty-four hours, the symptoms usually reverted to their former degree, and the next day no very marked effects from the treatment were noted. After the second treatment, the symptoms usually fell back a little. There were cases in which the severity of the paroxysms was less than after the first treatment. The most marked changes followed the third treatment. The patient seemed more noticeably relieved—the severity of the paroxysms was

reduced, whooping almost disappeared, cyanosis and vomiting became minor factors, and often more uninterrupted sleep at night ensued. By the end of a week, the appetite usually improved, and the patient was much better. Extremes were encountered, cases in which the mother reported cure following one treatment, and cases that persisted with no very marked benefit, in spite of the two courses of treatment. In the entire series of cases, including practically 100 children under 2 years of age, only one death occurred. Bowditch makes a strong plea to the medical profession and the public to give this form of therapy in whooping cough a fair trial.

PRODUCTION OF ACIDOPHILUS MILK ON A LARGE SCALE FOR GENERAL USE

Acidophilus milk is a pleasant, nutritious food beverage, equal and, in fact, superior to almost all other forms of "buttermilk." A glassful or more with one or more of the daily meals is the ideal way for it to be taken. For this purpose, it should be available at moderate cost and obtainable without special effort. It should be produced and supplied by the dairy in the same way that other forms of milk are supplied. Investigation has shown that it is possible, and C. C. Bass, New Orleans (*Journal A. M. A.*, May 10, 1924), describes a practical method of production that meets the need. The method differs from the methods of producing acidophilus milk previously used chiefly in that the milk is sterilized by interval heating at a temperature considerably lower than when it is sterilized in the autoclave, and the machinery and facilities that are already available in any well equipped dairy are used. It is believed that this method will take the place of the method of production formerly used, which has proved quite burdensome on the bacteriologic laboratories of physicians and others. Sterilizing milk by superheating it in the autoclave impairs the taste and probably lessens its nutritive value. What is probably still more important, it is quite likely that such autoclave milk may itself impair the digestion and health when it is consumed in large quantities over long periods of time. It is all right for therapeutic purposes, for relatively short periods of time; but, for the purpose of maintaining an acidophilus flora for prevention, it would be kept up indefinitely. When made

and supplied by dairies according to the method described, Bass says acidophilus milk should not cost any more than other kinds of "buttermilk." In fact, acidophilus milk of high quality, made by this method, is now delivered to the hospitals and to the homes of consumers in New Orleans for 13 cents a quart, and in Atlanta for 15 cents.

Personal and News Items.

The State Board of Medical Examiners of the Arkansas Medical Society held their regular meeting in Little Rock, May 13-15.

Drs. Scarborough, Ogden, Judd, Zell and Moore have moved from 900 Scott Street to their own building and hospital at Twentieth and Main Streets, Little Rock.

Dr. W. A. Wyatt of Rosie, Dr. Geo. S. Brown of Conway, Dr. E. E. Barlow of Dermott, Dr. C. D. Milner of Milner, Dr. O. C. Butler of England, visited in Little Rock this month.

The American Medical Association will meet in Chicago, June 9-13. This year's session will probably be one of the most interesting and largest in attendance of any previous meeting. Every member of the Arkansas Medical Society should be a Fellow of the A. M. A.

The Bureau of Legal Medicine and Legislation of the American Medical Association is arranging to invite the chairman of the State legislative committees to attend a conference in Chicago, Wednesday, June 11th, in the Association Building, to consider plans for increasing the legislative effectiveness of the American Medical Association and of its constituent associations. This preliminary announcement is made so that those interested may hold open the noon hour of Wednesday, June 11th, for this purpose.

Under the auspices of the Garland County Medical Society of Hot Springs, a Medical Intelligence Bureau has been organized for the purpose of placing before the medical profession of America, a clearer and more exact knowledge of the therapeutic values of the water of Hot Springs National Park of Arkansas, in the treatment of diseases and con-

ditions resulting from acquired or constitutional toxemias, faulty metabolism and defective elimination. Colonel L. M. Maus, retired, Medical Corps, United States Army, has been appointed Intelligence Officer and placed in charge of the bureau.

FOOT AND MOUTH DISEASE

In view of the epizootic of foot and mouth disease in cattle in certain parts of California at the present time and the interference with travel and with the shipment of certain food stuffs (including milk) as the result of the presence of this disease, Acting Surgeon General White of the Public Health Service was asked to discuss foot and mouth disease from the viewpoint of its possible danger to human beings.

"The disease," Dr. White states, "is an acute, highly contagious malady affecting chiefly cloven-hoofed animals, such as cattle and sheep. Animals suffering from foot and mouth disease have fever, followed by an eruption consisting of vesicles (small blister like sores) occurring chiefly on the mucous membrane of the mouth and on the skin at the cleft of the hoof and less frequently on the udders and other portions of the skin. There is usually prolonged ill health and much wasting of the tissues.

"The germ which causes this disease has not been identified, but it is known that it occurs particularly in the exudate from the vesicles, in the saliva, and in the milk of infected animals, though it is not limited to these materials. It is readily destroyed by heat, such as the boiling or pasteurization of milk.

"Adult human beings are not very apt to contract the disease, but it is by no means rare among children.

"The question has been raised as to whether the disease in children known as 'impetigo contagiosa' may not be identical with foot and mouth disease in animals, but no one has as yet been able to answer this question either in the affirmative or in the negative. Foot and mouth disease is not very fatal in cattle, and apparently much less so in human beings, if at all. It does cause serious losses when cattle are infected, because of the interference with the sale of milk, the reduction of the quantity of beef produced, and also on account of the expense and inconvenience resulting from quarantines against infected districts.

THE FRIENDS OF MEDICAL PROGRESS, INC.—ORGANIZATION OF LOCAL CHAPTERS

Cincinnati has just organized a local chapter of the Friends of Medical Progress, Inc., which, it is hoped, may be the forerunner of many similar chapters. The parent body, organized in Boston in 1923, has paved the way for a lay movement for the defense and promotion of medical research. The public, which chiefly benefits by this organization, should not be slow in identifying themselves with it. The first obstacle to be overcome is the fact that the public knows as yet little or nothing of the Friends of Medical Progress, Inc. Next is the lack of leadership necessary to crystallize action. Here the medical profession, with its special knowledge of the situation and of methods of organization, has a distinct opportunity for public service. Physicians may easily show a few of the leading citizens of the community that animal experimentation is for the sole purpose of prolonging life and of making more comfortable, efficient and happy the lives not only of men, but also of domestic animals; that organized efforts are being made by misguided persons to prevent investigation and to hamper investigators, and that there is need for a countermovement, if the progress of medicine is not to be retarded. Public spirited laymen with such evidence before them may then join in a call for a meeting to organize a chapter of the national body. A chapter, once organized, should promptly become an effective force for good in the community it serves. Physicians may well interest themselves in seeing that the laymen of other communities follow the example of the people of Cincinnati.—*Jour. A. M. A.*, April 12, 1924.

REMOVALS

Dr. J. L. Peavy from Horatio to Dierks.

Dr. T. H. Jones from Morrilton to Magnolia.

Dr. W. F. Wilson from Elmo to Bradford,

Dr. A. M. Lisenbee from Collins to Dalark.

Dr. R. E. Weaver from Smackover to Hope.

Dr. K. W. King from Floral to Salado.

Dr. J. T. Wood El Dorado to Fountain Hill.

Dr. R. L. Harris Blevins to Hope.

Dr. J. H. Baker from Fort Smith to Dyer.

Dr. D. C. Roberts from Ketchum, Okla. to Fayetteville.

Dr. A. S. Chapman from Mammoth Spring to Fort Smith.

Dr. J. P. Baker from Jerome to West Helena.

Dr. J. F. Bolton from Eureka Springs to Tulsa, Okla.

Dr. J. B. Benton from Stamps to Minden, Louisiana.

Dr. C. F. Perkins from Rogers to Miami, Arizona.

Dr. J. T. Mathews from Heber Springs to Newport.

Dr. R. L. Johnson from Rison to New Edinburgh.

A. F. Cornelius from Pine Bluff to Siloam Springs.

Dr. W. B. Lanning from El Dorado to Harlingen, Texas.

Dr. A. A. Gilbert from Fort Smith to Fayetteville.

Dr. J. H. Jackson from Center Ridge to Morrilton.

Dr. L. T. Evans from Mount Pleasant to Batesville.

Dr. M. P. McNeil from Bigelow to Pine Ridge South Dakota.

Dr. A. G. Blankenship from Rison to Annover.

Dr. H. V. H. Stroupe from Paris to Russellville.

Dr. J. L. Roberts from Murfreesboro to Nashville.

Dr. R. W. Steel from Decatur to Siloam Springs.

Dr. W. J. Shudde from El Dorado to Bastrop, Texas.

Dr. C. C. Purtle from Womble to Hot Springs National Park.

Dr. R. F. Parks from Fort Smith to Carlsbad, N. M.

Dr. W. H. Newsom from Humnoke to Louann.

Dr. A. A. McKelvey Fort Smith to Dallas, Texas.

Dr. C. H. Lutterloh from Jonesboro to Hot Springs.

Dr. M. E. Staudemayer from Leachville to La Feria, Texas.

Dr. J. L. Baird from Tyronza to Marked Tree.

Dr. Chas. R. Walton has moved from Little Rock to U. S. Veteran Bureau Hospital No. 62, Augusta, Ga.

PLAN OF ORGANIZATION FOR LOCAL BRANCHES OF THE NATIONAL ASSOCIATION OF FRIENDS OF MEDICAL PROGRESS

The plan of the National Association of Friends of Medical Progress is to build up local organizations in various States, and in cities within States, with all the aroused interest and energy possible in each, and yet all working under some central leadership on most economical lines toward the common purpose.

In Massachusetts the Friends of Medical Progress has been incorporated under the Charitable Corporations statute. It might or might not seem wise to friends in other States to incorporate. It might be found better in any given State to form an unincorporated association. This may perfectly well be left a matter of local choice, and the various State organizations can be formed by the friends there on lines which they may determine to be best. This question is likely to depend largely upon the statute law of the different States, but on this question nothing depends in so far as the central organization goes.

The plan, therefore, is substantially as follows:—

Form an unincorporated association to be known as "National Association of Friends of Medical Progress," with headquarters tem-

porarily at Boston, but perhaps later at Washington.

The members of this Association will be those chosen from time to time from the officers and directors of the various State organizations, which may be formed on substantially the lines of, and for the same purposes which the Massachusetts corporation has already declared.

The officers of this National Association would be a President, several Vice-Presidents, a considerable list of Honorary Vice-Presidents, (those now on our letter-heads), a Secretary and Treasurer, (who might be the same person), a fairly large Board of Directors, chosen from the members, and a small Executive Committee.

The purposes and functions of this National Association would be to guide and collaborate in the formation of plans and policies for the most effective corporative work among the various State organizations to the end that there should be the greatest economy of effort, the avoidance of unnecessary duplication of efforts and expense, and the free exchange and dissemination of information and campaign ideas.

ORGANIZATION OF LOCAL BRANCHES

The meetings of the associate members in a body might be held as, when and where desired. The meetings of the Directors of this National Association can also be held as, when and where desired, and occasional meetings would doubtless be desirable.

Most of the work, however, would probably be done by the relatively small Executive Committee of the Board of the National Association, which would meet with reasonable frequency and be the real administrative agency.

It would not be intended that the National Association should have any members except as above stated, and would not have any contributions made directly to it, or any assets or liabilities, but that what it might do from time to time would be rather as a parental agent of the various locals and that the various locals would from time to time make such appropriations or allowances from their several treasuries as would meet the expenses of the National Association, and its officers, including, for instance, such items as the necessary travel of the Executive Committee lecturers, etc.

The principal thought here and the great advantage of the plan lies in the consideration that the various local organizations will really be guided and controlled by the relatively few actively interested officers in charge, and that if these officers, either in body or by representatives, meet with reasonable frequency for conferences, the conferees will take back to their respective headquarters all the wisdom, suggestions and policies which may result from or be determined at such conferences, and the conferees at such meetings, coming from different sections of the country, will doubtless be able to give each other valuable information not otherwise easily obtainable.

The work will be, to a considerable extent, in the direction of the procurement of good, educational literature, and if the efforts are centralized and guided by the conferences of the National Association there will be considerable insurance against unwise literature, and there will be plans developed for the production and most economical and effective distribution of the literature possible.

The advantages of this plan would appear to be fairly summarized somewhat as follows:

1. There will be a national directing body.
2. Local organizations, each complete in itself, and each responsible for its own course of action.
3. The national body is made up of those who are really in practical control locally.
4. Each local body will therefore have all the wisdom of the national associates in conference.
5. The expense of campaign literature, etc., can be reduced to a minimum.
6. The whole power of the organization can be exerted from time to time where the effort is most needed.
7. Each local body has its own pride of independent existence and accomplishment.
8. The plan would appear to give the best assurance of holding all the various locals together, working on uniform and approved lines, and with a solid front for united and well advised action as occasion requires.

Obituary.

DR. JOHN A. LIGHTFOOT—Dr. John A. Lightfoot of Texarkana died May 7, 1924, aged 65. Death followed a second attack of apoplexy on the 4th inst; the first having been suffered about a year ago. Dr. Lightfoot is survived by his wife, his mother, one sister and one brother.

County Societies.

FRANKLIN COUNTY

(Reported by Thos. Douglass, Secretary)

The Franklin County Medical Society met May 13th, with four present: Drs. Post, Hansberry, Davis and Douglass. Dr. Post presided and read an interesting paper on "Ulcer of the Stomach" which was followed by an interesting discussion. We expect to meet next month at Charleston.

HOT SPRINGS—GARLAND COUNTY

(Reported by Thomas N. Black, Secretary)

On Tuesday evening, April 8th, the Garland County-Hot Springs Medical Society held its annual get-together dinner at the Eastman Hotel, and a large number of members and visitors were present. The feature of the program was a lantern slide lecture by Colonel L. M. Maus, U. S. A., retired. His subject being "Conditions in Japan." Colonel Maus is at present head of the Medical Intelligence Bureau of the Hot Springs Chamber of Commerce.

The Society voted to endorse and assist in the movement to build a large National Baptist Hospital in Hot Springs. Plans have been made and the drive is on to raise the funds.

ARKANSAS COUNTY

(Reported by R. H. Whitehead, Secretary)

The Arkansas County Medical Society met in Gillet, Tuesday, April 8, 1924.

Present: Raseo, Neighbors, Lumsden, Latimer, Moorhead, Swindler, Lowe, Winters, Davis and Whitehead.

Resolutions protesting against the Narcotic Tax, and also to permit physicians to deduct

as lawful expenses from his income tax his traveling expenses to medical meetings and while doing post-graduate work.

The following program was rendered by prominent Little Rock physicians:

Dr. D. A. Rhinehart, Lantern Slide Exhibit of Pathological Gall Bladders.

Dr. Dewell Gann, Jr., described his method of removal of the gall bladder.

Dr. Kilbury gave a paper on the use of Iletin in the treatment of Diabetes. Charts were used to illustrate the various changes in the case histories. Discussed by Dr. Barrier and Dr. Fay Jones of Little Rock.

The meeting was a grand success. The papers and discussions were excellent and much valuable information was given on these subjects.

WHITE COUNTY

(Reported by Sam J. Allbright, Secretary)

The White County Medical Society met at Judsonia, May 1st, at 8:00 p. m.

Members present: Drs. Little, Hassell, Peeler, Havner, Felts, Runyan, D. W. Sloan, Jones, Jelks, Woodyard, Burge, and Allbright.

Visitors: Drs. Peacock (druggist), Gill (dentist), Buckmaster, and Fraser.

Dr. J. W. Hassell reported a case of "Intussusception" in child nine months of age, in which diagnosis was made and a successful operation. He also reported an interesting case of dislocation of shoulder. These reports brought out interesting general discussion.

Dr. D. W. Sloan read a well prepared paper on "Valvular Heart Lesions"—With report of an interesting case.

Dr. Gill made an interesting talk on pyorrhea, advocating early treatment by extraction.

The program committee reported the following program for the next meeting, which will be held at Beebe:

"Intravenous Medication"—Dr. C. M. Peeler.

Subject to be announced—Dr. J. B. Havner.

Report of case—Dr. W. R. Felts.

Book Reviews.

International Clinics—A quarterly of illustrated clinical lectures and especially prepared original articles. Edited by Henry W. Cattell, M. D., with the collaboration of Chas. H. Mayo, M. D. Volume III, Thirty-third Series, 1923. Published by J. B. Lippincott Company, Philadelphia.

Twenty-eight physicians contribute to this volume on subjects pertaining to: "Diagnosis and Treatment," "Morbidity Psychology," "Pediatrics," "Medicine," "Surgery," and "Medicolegal."

Chemistry for Nurses—By Fredus N. Peters, A. M., Ph. D. An illustrated textbook. Second edition. Published by C. V. Mosby Company, St. Louis, Mo. Price \$2.50.

The author prepared this book in a manner that all may understand, and with the idea of more fully equipping those whose angelic visitations and watchful care must inevitably wield an ever increasing influence upon unfortunate humanity. Following each chapter is a dozen or more questions given as "Exercises for Review."

Obstetrics for Nurses—By Chas. B. Reed, M. D., Obstetrician to Wesley Memorial Hospital, Chicago. 144 illustrations, including two color plates. Published by C. V. Mosby Company, St. Louis, Mo. Price \$3.50.

This book will serve for class instruction and at the same time is complete enough for post-graduate reference. It represents the obstetric ideas and technique which the author has endeavored for years to impress upon his students and nurses. And as he expresses it: "It is a selective essence distilled from the recurrent harvests that workers in this field have brought forth during centuries of consecrated effort."

Principles of Bacteriology—By Arthur A. Eisenberg, M. D., Director of Laboratories, St. John's Hospital, Cleveland, Ohio. Second Edition. Published by C. V. Mosby Company, St. Louis, Mo. Price \$2.25.

This book represents the author's lectures to Nurses at the St. Vincent's Charity Hospital and St. John's Hospital of Cleveland, with several features dealing with microorganisms, a section—"Mode of Infection, Disinfection and Prophylaxis"—as regards the disease caused by particular microorganisms, giving explicit instructions as regards the patient and those who mingle with him, including the nurse, the room and its contents.

Much of this new edition has been rewritten and new matter included.

1922 Collected Papers of The Mayo Clinic, Rochester, Minn. Octavo of 1394 pages, 488 illustrations. Philadelphia and London. W. B. Saunders Company, 1923. Cloth, \$13.00 net.

This book presents a large collection of papers written from material gathered at the Mayo Clinic.

In a paper written by Dr. Helmholtz on "Drug Therapy in Pyelitis" he gives the following "Summary:"

"In acute cases of pyelitis the alkalis are useful, but we have no evidence of any direct specific action. Hexamethylenamin has a very definite bactericidal action in the bladder, but whether this applies also to the pelvis of the kidney has not been demonstrated. Phenyl Salicylate has not been found to have antiseptic properties in the doses given.

NATIONAL HEALTH SERIES:

Taking Care of Your Heart—By T. Stuart Hart, M. D., President of the Association for the Prevention and Relief of Heart Disease.

The Quest For Health—Where it is and who can help secure it. By James A. Tobey, Administrative Secretary, National Health Council.

The Young Child's Health—By Henry L. K. Shaw, M. D., Clinical Professor of Diseases of Children, Albany Medical College, New York.

Food For The Health's Sake—What to Eat. By Lucy H. Gillett, M. A., Superintendent of the Nutrition Bureau of the New York Association for Improving the condition of the poor.

The Human Machine—How Your Body Functions. By W. H. Howell, M. D., School of Hygiene and Public Health, Johns Hopkins University.

These little volumes are of interest and of great value to every one, in fact it gives practical advice in attaining health and preventing disease.

The Form And Functions of The Central Nervous System—An Introduction to the Study of Nervous Diseases. By Frederick Tilney, M. D., Professor of Neurology, Columbia University, and Henry A. Riley, M. D., Associate in Neurology, Columbia University. Foreword by G. S. Huntington, M. D., Professor of Anatomy, Columbia University. Second Edition, 591 figures containing 763 illustrations of which 56 are colored. Published by Paul B. Hoeber, 67-69 E. 59th St., New York. Price \$12.00.

A noteworthy feature in this book is the presentation. A clinical and physiological interpretation of the brain and spinal cord adequate to the requirements of practical application. As expressed by Dr. Huntington in the foreword: "The work is designed to fill

the gap between morphology and the practical requirements of clinical medicine. It aims to visualize the living nervous system, to make accessible an appreciation of its vital relation to the functions which go to make up life as well as the defects in these relations which result in disease."

Operative Surgery—Covering the Operative Technic involved in the operations of general and special surgery. By Warren Stone Bickham, M. D., F. A. C. S. Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original and separate Desk Index volume. Now ready—Volume I containing 850 pages with 921 illustrations. Volume II containing 877 pages with 1008 illustrations. Volume III containing 1001 pages with 1249 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index Volume Free.

The scope of these well-written volumes is covered in the subtitle, and it only remains to emphasize the fact that this role is work's distinct mission—namely: "The Operative Technic Involved in the Operations of General and Special Surgery."

The author also emphasizes that this work is not to be taken as an illustrator of treatment or cure only by operation; but as how to operate technically, provided—and only provided—operation be the distinctly indicated and wisest course.

The construction of the subject matter in these splendid volumes is divided into three parts: "General Procedures Employed in Surgical Operations," "General Operative Surgery," and "Special Operative Surgery." The ninety-seven chapters are planned, largely, on Anatomical basis.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923—Cloth. Price, Postpaid, \$1.00. Pp. 72. Chicago: American Medical Association, 1923.

This volume contains the unabridged Council reports that have been adopted and authorized for publication during 1923. Some of the reports, due to their technicality, have only been abstracted in The Journal; others have been published in entirety, and still others have never been published elsewhere.

In this volume the Council sets forth the reasons that certain proprietary remedies were found unacceptable for New and Nonofficial

Remedies, the reason why it has been deemed wise to omit certain hitherto accepted articles from the present, 1924, edition, of New and Nonofficial Remedies, and the volume also contains certain preliminary reports on products that have therapeutic promise, but are as yet in the experimental stage. There is a long report on the widely advertised Fleischmann's Yeast, which was not found acceptable. Benetol, another article that has had much mention in the daily press, receives attention. There are reports on apiol and mercurial oil, which have been omitted from New and Nonofficial Remedies. In addition to these types, there are preliminary reports on bismuth in the treatment of syphilis, ethylene as an anesthetic, peptone in the treatment of migraine, and tryparsamid; and there are reports of such general interest as that on intravenous therapy and that on progress and conservatism in therapeutics.

For one who wishes to be cognizant not only of what the Council has done, but why it has done it, the book will be very valuable, for it supplements New and Nonofficial Remedies with a more detailed account of the activities of the Council during 1923. New and Nonofficial Remedies records those proprietary remedies which have been accepted; Council Reports treats those which have been found unacceptable, and those which give promise of becoming valuable.

New And Nonofficial Remedies, 1924, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, \$1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

Every physician is continually bombarded with literature, scientific and otherwise, concerning the newer remedies. He has neither the time nor the opportunity to investigate all even of the more promising preparations, and obviously he cannot try them upon his patients without investigation. He must know the composition of the article, must know that the claims under which it is marketed are true; in other words, he must have some critical statement of the actions, uses and dosage as well as of the chemical and physical nature of the product.

This need of the physician is met in New and Nonofficial Remedies, which is the official publication through which the Council on Pharmacy and Chemistry annually presents to the American medical profession disinter-

ested, critical information about the proprietary preparations which the Council deems worthy of recognition. In addition to the description of these proprietary preparations, the book treats those nonofficial remedies which, in the opinion of the Council, are worthy of consideration.

As the book is designed for ready reference, each preparation is classified, and each classification is preceded by a general and critical discussion of that group. These articles are written by those who may speak with authority on the separate subjects, and are a compilation of the best accepted opinions of today. Thus there is a general article on lactic acid-producing organisms in which the newly accepted *Bacillus acidophilus* preparations are discussed in connection with other accepted sour or fermented milk preparations. The animal organ preparations, the biologic preparations, the arsenic preparations, and so on are discussed in such a manner as to make the accepted facts concerning each group readily available.

A glance at the preface of the new volume will show that the book has been extensively revised. In fact, each new edition of New and Nonofficial Remedies is essentially a newly written book, fully indexed.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book), there are references to published articles dealing with preparations which have not been accepted.

New and Nonofficial Remedies is a book that a physician who prescribes drugs cannot afford to be without. The book contains information about medicinal products which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

A DOCTOR who had taken up as his specialty the treatment of skin diseases, was asked by a friend how, he happened to select that branch of medicine.

"There were three perfectly good reasons," replied the physician. "My patients never get me out of bed at night; they never die; and they never get well."

The Secretary of the County Society will please notify the State Secretary immediately of any error or change in these officers.

DIRECTORY

OF THE

COUNTY SOCIETIES OF THE ARKANSAS MEDICAL SOCIETY

1924

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CROSS	Ruffin Longest	Wynne	Thos. Wilson	Wynne
DALLAS	J. Y. Smith	Sparkman	J. E. M. Taylor	Sparkman
DESHA	Vernon MacCammon	Arkansas City	W. H. DeClark	McGehee
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GRANT	J. L. Butler	Sheridan	R. M. Blakely	Sheridan
GREENE			F. M. Scott	Paragould
HEMPSTEAD	M. V. Russell	Hope	J. H. Weaver	Hope
HOT SPRING	E. T. Bramlitt	Malvern	Chas. Prickett	Malvern
HOWARD				
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LINCOLN	C. W. Dixon	Douglas	G. C. Wood	Grady
LITTLE RIVER	P. H. Phillips	Ashdown	W. E. Vaughan	Richmond
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May 26 to June 7, 1924

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DAILY CLINICS (No fee charged for these courses.)

Those attending courses must register at the office of the Saint Louis Clinics,

BARNES HOSPITAL

3525 Pine Street

Monday, June 2d.

- 9-10 A. M. DISEASES OF THE CARDIOVASCULORENAL SYSTEM. Dr. Elsworth Smith.
Presenting Recent Advances in Etiology, Pathology, Prophylaxis, and Treatment of Arterial Hypertension and Arteriosclerosis.
- 10-11 A. M. DISEASES OF THE CHEST. Dr. Walter Baumgarten.
Clinical and X-ray Interpretations.
- 11-12 A. M. DISEASES OF THE GASTRO INTESTINAL SYSTEM. Dr. J. W. Larimore.
Ward walks and X-ray Demonstration. Methods of Clinical and X-ray Examinations. Dysphagia and Oesophageal Diseases. Gastric and Duodenal Ulcer. Syphilis of the Stomach. Tuberculosis of the Intestines. Diseases of the Colon. Cancer of the Gastro-Intestinal Tract. Treatment.

- 8- 9 A. M. Various Plastic Procedures in Mouth and Upper Air Passages.
St. John's Hospital or St. Mary's Infirmary. Dr. Wm. T. Coughlin.
- 9-10 A. M. Oral Surgery. Operative.
Mullanphy Hospital. Dr. Vilray P. Blair.
- 2:30 P. M. Ophthalmology. Operative Clinic.
St. Mary's Infirmary. Dr. John Green, Jr.

Tuesday, June 3d.

- 8- 9 A. M. Oto-Laryngology. Operative Clinic.
St. Anthony's Hospital. Dr. F. G. A. Bardenheier.
- 9-10 A. M. Oral Surgery. Operative.
Barnes Hospital. Dr. Vilray P. Blair.
- 1:30 P. M. Oto-Laryngology.
St. Mary's Infirmary. Dr. William M. Smit.
- 3- 4 P. M. Ophthalmology. Clinic.
St. Mary's Infirmary. Dr. J. F. Hardesty.
- 4- 5 P. M. Plastic Surgery.
St. Anthony's Hospital. Dr. F. J. Tainter.

Wednesday, June 4th.

- 8- 9 A. M. Oto-Laryngology.
St. Louis Children's Hospital. Dr. M. F. Arbuckle.
- 9-10 A. M. Oral Surgery. Operative.
Mullanphy Hospital. Dr. Vilray P. Blair.
- 1:30-2:30 P. M. "Mitheobachtungs Relascop" and the Obturoscope for Negative Pressure Rhinology.
Missouri Baptist Sanitarium. Dr. Roy P. Scholz.
- 2:30 P. M. Demonstration of Instruments of Precision for Intraocular Examination.
St. Louis University School of Medicine. Dr. W. H. Luedde.
- 3:30 P. M. Demonstration of Thermophore.
520 Metropolitan Bldg. Dr. W. E. Shahan.

Thursday, June 5th.

- 8- 9 A. M. Radical Mastoid. Barany Modifications.
Barnes Hospital. Dr. H. W. Lyman.
- 9-10 A. M. Oral Surgery. Operative.
Barnes Hospital. Dr. Vilray P. Blair.
- 1- 2 P. M. Oto-Laryngology. Clinical and Operative.
St. Mary's Infirmary. Dr. William M. Smit.
- 2 P. M. Ophthalmology. Operative.
Jewish Hospital. Dr. Meyer Wiener.

Friday, June 6th

- 8- 9 A. M. Oto-Laryngology. Operative.
St. Anthony's Hospital. Dr. F. G. A. Bardenheier.
- 9-10 A. M. Oral Surgery. Operative.
Mullanphy Hospital. Dr. Vilray P. Blair.
- 2 P. M. Oto-Laryngology.
Washington University Dispensary. W. M. F. Arbuckle.
- 4- 5 P. M. Plastic Surgery.
St. Anthony's Hospital. Dr. F. J. Tainter.

Saturday, June 7th.

- 9-10 A. M. Oral Surgery. Operative.
Barnes Hospital. Dr. Vilray P. Blair.
- 1:30-2:30 P. M. Oto-Laryngology. Operative and Clinical.
St. Mary's Infirmary. Dr. William M. Smit.
- 2:30 P. M. Trachoma Clinic.
Clinic Building, City Hospital. Dr. John Green, Jr.

CITY HOSPITAL

- 8- 9 A. M. PHYSICAL DIAGNOSIS. Dr. E. P. Buddy.
Newer Methods of Examination
- 9-10 A. M. LOCAL FOCAL AND GENERAL INFECTIOUS DISEASE. Dr. C. H. Neilson.
- 10-11 A. M. NON-TUBERCULAR DISEASES OF THE RESPIRATORY SYSTEM. Dr. J. C. Lyter.
- 11-12 A. M. THERAPEUTIC CLINIC ON TYPE CASES IN GENERAL MEDICINE. Dr. A. P. Munsch.
- 12- 1 P. M. ORGANIC DISEASES OF THE NERVOUS SYSTEM. Dr. W. W. Graves.

MEDICO-SURGICAL CONFERENCE AT CITY HOSPITAL. 10-11 SATURDAY.

CLINICAL PATHOLOGICAL CONFERENCE AT BARNES HOSPITAL, 4-5 THURSDAY.

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- (1) Z. Zsigmondy—*Anal. Chem.* 40 (190), 697; *Beitr. Physiol. Path. Chem.* No. 3 (1903), 137.
- (2) Drs. Moore and Krombholz, *J. Physiol.*, 22 (1908), 54.
- (3) Dr. C. A. Herter ("Infantilism from Chronic Intestinal Infection").
- (4) Dr. Abraham Jacobi ("The Intestinal Diseases of Infancy and Early Childhood").

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